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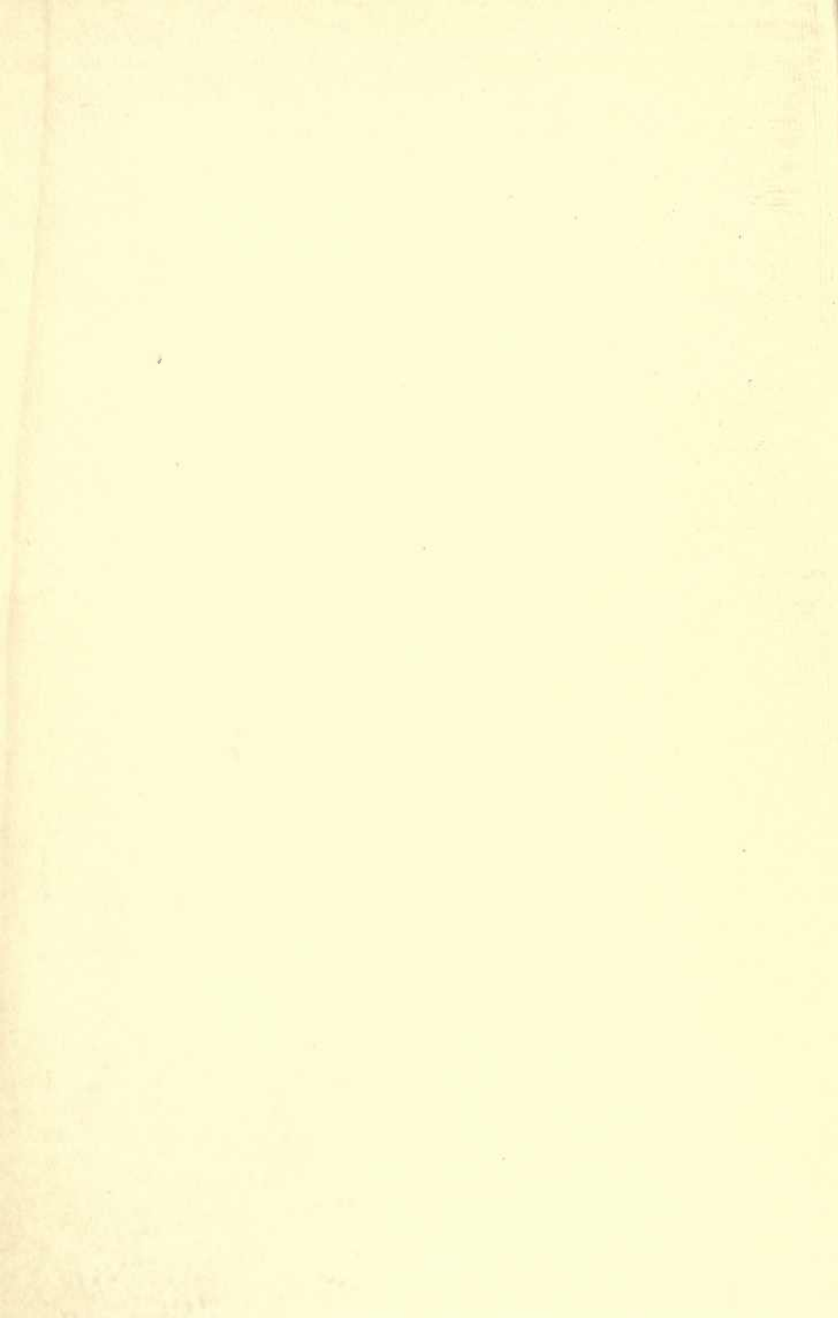


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ITH

AND
FOLLY

John S. Vaughan.



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FAITH AND FOLLY

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Archiepiscopus Westmonasteriensis

FAITH AND FOLLY

BY THE

RIGHT REV. MGR. JOHN S. VAUGHAN, D.D.

BISHOP OF SEBASTOPOLIS

AUTHOR OF "THOUGHTS FOR ALL TIMES," "LIFE AFTER DEATH," "CONCERNING
THE HOLY BIBLE," "EARTH TO HEAVEN," "DANGERS OF THE DAY,"
"THE PURPOSE OF THE PAPACY," ETC., ETC.

THE
WISDOM
OF THIS WORLD IS
FOLLY
WITH
GOD
(1 Cor. iii. 19)

HATH NOT GOD MADE FOOLISH THE WISDOM
OF THIS WORLD
(1 Cor. i. 20)

FOURTH EDITION

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PREFACE.

GOD communicates with man in divers ways. He speaks to him through his conscience ; and through the inspired pages of Holy Writ ; and, with yet greater clearness and emphasis, through the living voice of the Catholic Church, which He founded on "the Rock" of Peter well-nigh 2,000 years ago. God speaks to man also by the lips of Science and Philosophy, and through the visible creation, which lies stretched out before him like an open book—that "Book of Nature," which is ever proclaiming in its own impressive way "the wondrous works of His hands".

By whatever channel He speak, the voice is always one and the same, for it is always the voice of the living God. From this it is evident that there can never be the slightest real discord between the lessons taught. Geology cannot be in contradiction with Scripture. Science cannot oppose Revelation, nor is it conceivable that the conclusions of Philosophy can ever be

out of harmony with the Definitions of Divine Faith.

There may be, and there often are *apparent* conflicts, but they can never be anything more than "apparent". Indeed such conflicts are natural and inevitable, and will continue while man remains what he is. Man's imperfect knowledge, his false interpretations, his unwarranted conclusions, his erroneous deductions, his ill-founded theories, his mistaken judgments, and even the very limitations of his mental vision must often occasion apparent contradiction; and may even start interminable discussions and conflicts between the teaching of the Infallible Church and the utterances of human science. But these differences are never real.

Revelation may seem to say one thing, and Science another, but God is the Author of both, and He cannot contradict Himself. The Book of Nature, *when correctly read*, is, and must be, just as infallible in its teaching as the Book of Holy Scripture, since both are written by the same Divine Hand. The essential difference is, that, whereas he who reads and studies the one has received no Divine promise of infallibility in his interpretation of it, and

may often misunderstand, he who reads the other, on the contrary, possesses the Church as his infallible guide and Teacher, and therefore cannot possibly be led astray. Hence, in all cases in which the Church has clearly and authoritatively enunciated her judgment, and defined a doctrine lying within her own sphere of Faith or of Morals, there can be no room for doubt or hesitation. In such cases, it is not merely that God Himself is speaking; it is rather that He is speaking through a channel *prepared and safeguarded from error by Himself*, so that falsehood is impossible even in the transmission of the message.

If therefore arrogant men, in the name of science, of history, or of philosophy, deny her teaching, or attempt to enforce a doctrine irreconcilable with it, they are necessarily in error and opposing the truth.

However specious and plausible their arguments may be, and however cleverly they may be marshalled and arranged, the reasoning of such men must be utterly false.¹ One may,

¹ Etsi fides sit supra rationem, nulla tamen unquam inter fidem et rationem vera dissensio esse potest; cum idem Deus, qui mysteria revelat et fidem infundit, animo humano rationis

indeed, glorify it by the name of Wisdom ; but it can be only the "Wisdom of the World," denounced and condemned by St. Paul. A Wisdom which the Apostle expressly warns us is not merely "folly," but folly of the most absolute and grossest kind, since it is folly in the eyes of the Infinitely Wise : "The Wisdom of this World is folly WITH GOD" (1 Cor. iii. 19). Hence those who are reputed learned and wise forfeit all claim to such titles so soon as they venture to contradict the infallible messenger of God, or to question the utterances of Omniscience. To employ the language of Holy Scripture, they are in the truest sense "fools," and their doctrine "folly". The merest child may justly so designate them and their teaching without arrogance, and without laying claim to any superior knowledge. It is enough that he recognise, on the one hand, the infallibility of the Church, and her divine commission and prerogatives, and on the other, the

lumen indiderit ; Deus autem negare seipsum non possit, nec verum vero unquam contradicere . . .

. . . Omnem assertionem veritati illuminatæ fidei contrariam omnino falsum esse definimus.—See *Constitutio dog. de fide Cath.*, sess. iii., cap. 4.

obstinate opposition of these men to her teaching, to justify his verdict.

The preceding remarks will explain the title of the present little work. We call it *FAITH AND FOLLY* because our chief purpose in publishing it is to strike a blow, however feeble, however unworthy, and however ill-directed, in defence of the Faith, and of the supernatural structure erected by Faith, against attacks of modern infidelity and the assaults of the worldly-wise.

Most of the chapters have already appeared in one or another of the Reviews or Magazines, but we have been induced to make them more accessible, and to secure for them a wider circulation, by publishing them together in a single volume. Whether in this we have been well or ill advised, the future will show. "Time is the old Justice that examines all such ventures."

J. S. V.

Feast of the Purification, 1901.

EDITOR'S INTRODUCTION TO SECOND EDITION.

EVER since the first edition of *Faith and Folly* was exhausted some five years ago, there has been a strong and growing desire expressed in many even distant and unexpected quarters of urging upon the Right Rev. Author the opportuneness of issuing, with as little delay as possible, a new edition. The book goes very far to meet a want long felt, and felt very keenly, during these first years of the new century, by our priests especially, whose lot is cast in the larger and busier centres of activity, where their young men are being drawn into inevitable discussions upon the deepest and knottiest questions that affect religion. They are questions that range further than the necessarily limited instruction our primary and secondary schools has probably been able to reach. They deal with certain matters that rarely enter into explanations of the Catechism or the course of preparation for a first Communion, and with

doubts that to a Catholic, left to himself, would scarcely ever have occurred. Very often they are hardly understood by those who treat them. They are derived from cheap prints and shallow lecturers, or from a very cursory acquaintance with great works of great authors that need an educated mind to weigh and sift their true significance. Still, all the more because they are clumsily put, they provoke eager discussion and breed doubt and tend generally to unsettle the simplicity of belief. It is well known that a really readable book is a far more effectual weapon to put into the hands of those who want to equip themselves for the fray, than a verbal answer, given perhaps on the spur of the moment, and by one who has not the leisure or the opportunity for going deeply into subjects that often need a good deal of hard thought and contemporary reading.

What our young men want nowadays is just that which *Faith and Folly* supplies. They want the grand voice of Catholic Theology divested of all scholastic terms and technical phraseology, speaking in such an easy, charming, lucid style as to attract and compel attention. They do not want mere bluff. They do not

want to be treated as children. They feel sure, poor fellows, that their Church *can* answer every difficulty. They want some one who is a recognised "teacher in Israel," and who has read what they have read, heard what they have heard, and who fully grasps the fact that argument must be met by argument—some one who treats them as men and logical men—to step down from the pulpit and show them how to scout the folly of unbelief.

Monsignor Vaughan has already gained the ear of English-speaking Catholics on both sides of the Atlantic and in the vast Australian colonies where five-and-twenty years ago he first began to use his tongue and pen in defence of Catholic Truth. His store of learning, sacred and secular, his retentive memory, his unusually wide range of reading in contemporary science and literature, and in so many languages, his singularly clear and luminous arrangement of thought, his happy knack of illustration, his patience, his humour and his flashes of ready wit, have all combined to place him in the unique position of spokesman for the keen-witted, enthusiastic, militant lay Catholic of the present day. There is no narrowness in his

side by side on stall and in shop-window with Clodd and Haeckel, Huxley and Grant Allen, and at the same low price. It would be well worth the venture. There would be a manifest answer to the question "Do we believe?" that was put week after week in the columns of the *Daily Telegraph* last year, inviting a reply—yet no Catholic voice was distinguishable in that pathetic clamour of varied response. The oldest creed shows no signs of crumbling or dissolution, *quia veritas Domini manet in æternum*.

E. C.

FOREWORD
TO THE FOURTH EDITION

SINCE the Second Edition of "Faith and Folly" appeared, the learned Canon Luigi Cappelli has brought out an Italian edition, entitled "FEDE E STULTEZZA," printed and published in Siena, by the Tipografia S. Caterina.

We now offer our indulgent readers a fourth issue of our little work, hoping thus to extend still further its mission in the world, and to widen the area of its influence for good among both Catholics and non-Catholics.

Thanking our readers for their kind patronage, we remain their devoted servant in Christ.

J. S. VAUGHAN,
Ep̃us. Eccl. Sebasopolitanæ.

Feast of the Purification, 1911.

FAITH AND FOLLY.

“‘God created man?’ No such thing! The monads developed him. ‘The heavens declare the glory of God?’ Far from it, they declare only the glory of the astronomer. We have no need of the hypothesis of God. These are the merest commonplaces of modern agnosticism.”—S. WAINWRIGHT, D.D.

“La formacion y estructura de los cristales, la generacion de los seres orgánicos, la esencia de la vida, sus efectos, su reproduccion, sus cambios y alteraciones y otros mil problemas que tratan de resolver las ciencias naturales son cuestiones ante las cuales permanece muda la razon del hombre.”—EL P. MIGUEL MIR.

THE very best means of guarding against the danger of forming a too favourable opinion of others, is to conceive the most exalted possible opinion of oneself. It seems to be in some such way that modern science fortifies herself against any weak surrender to the just demands of Faith and Revelation. She is obliged of course to acknowledge that Christianity possessed a very strong hold upon our ancestors in the past. She is even condescending enough to admit that faith in the supernatural might have been — only provisionally, of course —

rather a good thing, or even a necessity, for very simple folk, living in a very simple age. In no case, however, will she allow that there is anything to excite astonishment in the fact that a supernatural creed, such as that which Catholics profess, with its glimpses of eternal terrors and its vistas of endless future delights, should hold in thralldom men and women accustomed to open their ears to any incredible story or idle tale. Persons who endow witches with preternatural powers and burn them for sorcery,¹ who read their destinies in the stars, who see fairies dancing out the long summer nights on the green, and who give credit to other idle and exploded superstitions, would naturally—she urges—believe anything whatsoever, even the “mummery of the Mass”—and might in any age be led to accept even far less verifiable mysteries, if offered to them by this imposing and world-wide Church. Those were days of superstition, credulity, and intellectual darkness. Night then wrapped the entire world in its sable folds, and lay like an incubus upon every race and people. It is only now—thanks to Spencer, Tyndall, Huxley, Clifford, and

¹ Professor Sherr, in his *Geschichte der Deutschen Frauenwelt*, estimates that “*in Germany alone* at least one hundred thousand ‘witches’ were burnt at the stake”.

other illuminati—that the dawn is at last breaking and the clouds are scattering ; and although we Catholics are of course still a-bed, yawning, stretching ourselves, and rubbing our eyes, yet Science, like the early housemaid, has been up and astir since cockcrow, brushing away with her pitiless broom the gathered dust and cobwebs that have so long defiled the fair temple of Truth. The fact is, men have grown so learned and so wise in our generation that delusion is no longer to be thought of, while their perception of error has now become so exquisitely sensitive that they are able to discover it even where it has no existence, and can point it out triumphantly where alone its presence is an absolute impossibility—*i.e.*, in the revelations of God Himself.

Many of the more unscrupulous exponents of science pretend to be able to analyse, unravel, and explain everything ; and as a logical consequence they reject and cast aside all that will not yield to their experiments as unreliable and untrue. Thus the world swells and inflates itself with pride. Indeed pride, especially pride of intellect, is the very bane of the age in which our lot has been cast. Yet a worse disposition for the practice of faith cannot be imagined, for “ God resists the proud ”. So long indeed as

a person confines his assent to such things only as he may master and test for himself, it is impossible that he should ever acquire any belief in the supernatural, which is, by its very nature, incomprehensible and above reason. On the other hand, as St. Augustine affirms—"Si superbia non esset, non essent increduli". "If there were no pride, there would be no heresy."

These more unscrupulous exponents of science often argue as though we Catholics especially dread the light, and fearlessly prophesy that, whatever amount of fluttering and twittering we may make under cover of the twilight, the dawn of the approaching day, at all events, will be sure to find us, like all other bats and ungainly night fowl, hiding in some ruined hollow or decayed tree, our heads covered with our wings; or perhaps, like the vampire, hanging dejectedly from our feet—who knows? In the face of so much historical evidence to the contrary, it seems strange to be told that the Church is afraid of knowledge. Such a wild and reckless statement hardly needs a serious refutation. The Church, every student knows,¹

¹ If any one feels disposed to question the efforts the Church has ever made to dissipate ignorance and to diffuse knowledge let him consult the following indisputable authorities:—Concil. Lateran. can. 18, an. 1176; Concil. Vasens. can. 1, an. 529; Narbon. can. 11, an. 589; Clovesho. can. 7, an. 747; Aquisgran. can. 135, an. 816, &c.

has ever welcomed, fostered, and encouraged knowledge both philosophic and scientific, religious and profane, and rejoices at its diffusion now as much as ever ; for she is the first to recognise that all knowledge is of God. It is ignorance that the Church fears, not knowledge. Although the truths of Faith are mysteries and its dogmas incomprehensible, yet, in her efforts to promulgate them, she looks upon knowledge not in the light of an enemy, but in the light of a friend. As a matter of fact, the main difficulty of imparting the sublime truths of the Gospel, committed to her keeping by Christ, arises not from man's astounding wisdom, but from his astounding lack of wisdom—from his exceeding great folly. Whatever may have been the case in the time of St. Peter, it is quite certain that the great adversary we have to face in these days is the devil of ignorance, who is "going about roaring" loudly enough in every land. He roars with a thousand throats. He finds a tongue in the daily press and in countless books, pamphlets and periodicals that trumpet his sophisms over the world—to say nothing of the assistance derived from infidel lecturers and itinerant preachers. Faith would be far more widely diffused at this moment were men less superlatively dull and ignorant.

The one specially ignored fact to which we wish to direct attention here is the exceedingly limited range of the human intellect. This, though an important and fundamental truth, men seem incapable of realising. Unconscious though they are of many things, of nothing are they so unconscious as of the depth and width of their own nescience. Yet this unconsciousness is as fatal as the unconsciousness of the sleep-walker treading the dizzy edge of a parapet—so long as it endures, they can neither desire instruction nor profit by it, and like the blind leading the blind, will roll over and over together into the ditch. This pride of intellect is at the root of all the widespread agnosticism and infidelity of the present day, and suggests to our mind the explanation that the great St. Augustine gives of the errors of his own early life—*viz.*, “*Nimis inflata facies mea claudebat oculos meos*” (*Conf.*, lib. vii.).

Let us briefly consider our position in this world. The great Creator who has set us down here, has furnished us with mind and brain. With these, as instruments, we grope about in the darkness of the present and lose ourselves among the infinitude of objects that strew our little earth; the earth itself being

but an insignificant mote¹ floating in the limitless ocean of immensity. We hazard guesses and conjectures concerning the purposes and ends of all that we feel and hear and see, and struggle hard in our efforts to investigate the inherent properties and natures of the myriad objects that lie in such endless profusion around us. And because we have learnt something—infinitesimally little, it is true, yet something of that which encompasses us upon every side—we at once fancy ourselves in a position to weigh and to pronounce upon all things visible and invisible, and to sit in judgment upon the sublimest revelations of divine faith.

In a word, we rise up from our study of the dust and the dirt at our feet, which we can but very partially understand, quite ready to discuss, or, if it so please us, to denounce and deny, the profoundest secrets of Divine Wisdom, with a flippancy and an arrogance which are simply portentous.

Much stress is laid upon religious difficulties and the incomprehensible nature of divine truths. Men refer to these difficulties not as a motive of humility or as illustrating the limited range of the human mind, but as a positive justifica-

¹ Nostro piccolo globo relativamente *microscopico*, &c.—Secchi.

tion of the doubt and infidelity now eating into the very vitals of society. They argue and discuss just as though in the order of nature there were no analogous difficulties, and nothing incomprehensible whatsoever. And this is the less excusable, since a little reflection would have at once convinced them, that even this gross material and visible world hides mysteries without number, as the sea hides the unnumbered sands.

In the days when the world's Redeemer walked the earth in human form, the promises He made of supernatural gifts were met with a supercilious "How can these things be?" So is it at the present day. When God speaks by the mouth of His Church, men still question with ill-concealed incredulity. Of each dogma in turn they demand, "How can this thing be?" Speak of the eternal fire of hell, "How can this thing be?" Speak of regenerating grace, of the power of absolution, of the resurrection of the dead, of Purgatory, of the Incarnation, of any dogma whatever, and again and again we are met by the same foolish query, "How can this thing be?" as though they would say, "Explain, demonstrate your statements, smooth out every wrinkle so that our reason may understand and approve, or we refuse to listen to you".

What assumption! and, at the same time, what presumption! What arrogance lurks in such a demand! How can this thing be? Well, if it come to that, how can *anything* be? How came *you* to be, gentle reader? Look up at the stars overhead, or down at the earth beneath your feet. How came they to be? Look at yon floating cloud; at the bird that cleaves the blue; at the worm wriggling on the grass; at the moss spreading its verdure over the crumbling wall; at the ray of sunlight darting through the lattice; at the light of the glowworm's lamp. How came they to be? Can you explain them, unfold their hidden secrets, lay bare to human mind their inmost structure and hidden properties? Not in the least; they are more than a match for you with all your parade of learning. Explain them? Never! There is not a grain of sand, a drop of morning dew, a film, a particle of dust, a wandering mote, a tuft of floating thistledown, but contains marvels and mysteries enough, yea, more than enough, to crush out all this assumption of profound knowledge, and to bring the proudest scientist down upon his knees in wondering admiration and prostrate prayer.

Mystery is all around us and about us; and in the earth beneath our feet, as well as in the

heavens above our heads. It is the atmosphere of life, and the very texture of the cosmos. We need not go to the deep sea to discover depths which no plummet has ever fathomed. There are depths as profound, as wholly inaccessible to human eye, and as impenetrable to human reason, in each trembling raindrop that the passing storm has hung glistening like a diamond on the cottage eaves. You cannot explain them—no, nor anything about them. You cannot even account for their iridescence or their globular form, or their power of refraction or reflection, without referring us to mysterious laws and principles as incomprehensible as themselves! Yet you contrive to believe what you can see and hear, however unintelligible!

But surely we cannot, without violating reason, accept the incomprehensible (while it remains incomprehensible) on the testimony of the senses alone, and yet at the same time hesitate to accept it on the infinitely more reliable testimony of Him who has created these senses, and has invested them with whatever authority and persuasive force they possess? To do so would be to place the king's faltering messenger before the king himself, as the better exponent of the royal mind—which is outrageous.

The assumption of profound knowledge is not merely a false assumption, but it is a prolific source of the present self-will and obstinate closing of the heart and mind against every form of religious truth. We must endeavour to prick this bubble of pride, and show that the wisest of men, if he be but a boaster without humility, is but a sorry fool after all.

When we have convinced ourselves of the existence of endless incomprehensible wonders in the visible world, we shall more readily acknowledge the probability of their existence in the invisible world. The mind that has actually grappled with the mysteries of the material earth ; that has been brought face to face with them ; that has been perplexed, baffled, conquered, and finally wholly subdued by a contemptible grain of sand or most unvaliant millet-seed, will, we may reasonably hope, be less likely to grow contentious concerning things eternal and supernatural—will, in fact, surrender at discretion to the mysteries of divine faith.

How are we to bring home to ourselves the knowledge of our ignorance? Perhaps the only practical method would be to learn one by one the unnumbered and innumerable phenomena which are absolutely beyond our ken. That, however, would be the task, not of a day, nor

of a lifetime. Eternity would scarcely suffice. All that remains to us, then, is to propose one or two examples. These mastered, we may readily imagine the rest. *Ex pede Herculem.*

Look up at the firmament of heaven on a bright day at noon. Contemplate the gorgeous sun which God has hung like a lamp from the blue vault above. What a wondrous exhibition of power is there! The earth upon which we dwell is generally considered a fair size; but astronomers assure us that the volume of the sun is one million two hundred thousand times greater than that of the earth, and three hundred thousand times its weight. If laid on a balance, three hundred thousand worlds, such as ours, would be needed to weigh it down. We can scarcely conceive what this weight really is, yet the sun in its turn is but a small and insignificant star compared to others existing in the firmament. In fact, in the words of a well-known and reliable astronomer, "The whole solar system is but a mere speck in the universe—an atom of sand on the shore, a drop in the infinite ocean of space" (Lockyer). Speaking of this "ocean of space," the famous Padre Secchi remarks, "Sebbene non assolutamente infinito, per noi è come se lo fosse".¹ This not-

¹ *Le Stelle*, 1877, p. 335.

withstanding, the earth and sun, together with millions of other planets, are suspended, without any visible support whatsoever, in a medium far more subtle than common air. What fixes their position and maintains them where they are? We shall see, in a page or two further on, that nobody knows, and that nobody can know, but that it is a mystery as unfathomed as that of the resurrection from the dead.

Further, it is an unquestioned truth that they are all in motion. In the case of many this motion is so rapid that, compared with it, the swiftest shell projected by the most powerful piece of ordnance yet invented does but creep and crawl along, loitering, like Shakespeare's schoolboy, "unwillingly to school". Indeed, the very earth on which we dwell, together with its freight of seas, rivers, mountains, plains, its populous continents and crowded cities, is actually, while we read, whirling, rushing, tearing, and bounding wildly on along its prescribed pathway round the sun at a pace wholly bewildering to contemplate. It has already travelled several thousands of miles, dear reader, since you began to peruse these lines. Could we saddle and sit astride the flying bullet as it whistles through the yielding air, we should not advance so rapidly as speeds the earth along

through space. As chartered passengers on board the ship of the earth, we traverse the wide ocean of ether at a rate exceeding a thousand miles—not per day, nor even per hour, but, *incredibile dictu*, per minute. So that in each succeeding hour we are hurried along, in spite of ourselves, through more than sixty thousand miles of space. Yet our earth moves slowly as compared with other planets. Arcturus, for example, travels over fifty miles in one *second*; consequently more than three times faster than the earth.

This is not all. Each scintillating star not merely moves,¹ not merely moves in many cases at an incredible velocity, but, what is far more admirable, with such regularity and precision, and along such a well-defined path, deviating neither to the right nor to the left, that astronomers can predict to a nicety—to within a minute, or even a fraction of a minute—at what point in the heavens they may be found at any given future time—say next month, next year, or even next century.

¹ Though astronomers speak of “fixed” stars, they warn us that, in reality, all the stars are in motion. Not even our “day star,” the sun, is “fixed”. On the contrary, Sir W. Herschel assures us that it is hastening towards the constellation of Hercules at the rate of 20,000 miles per hour. And he is quoted by such an up-to-date authority as Professor Ball, p. 429.

These are what are called scientific facts. Our only purpose in introducing them is to point out that they are not merely scientific facts, but that they are also scientific mysteries—mysteries in the natural order. Men who will not hear of mysteries even in the invisible world are yet constrained by the irony of fate to accept mysteries here in this palpable and visible universe. For how such gigantic masses of matter, forming these colossal worlds, can be supported and controlled, and led along with such absolute docility and obedience, and at such a pace, through the trackless waste, year after year and century after century, while generations of men come and go, and kingdoms rise and fall, no one can tell.

If I appeal to the most learned astronomer that ever walked the earth, and beg him to give me an explanation, he can no more do so than he can “pluck bright honour from the pale-faced moon”. Why? For the best of all reasons: because he has none to give; because, in its ultimate analysis, he is as ignorant of the mystery as you or I.

Do not mistake me, gentle reader. I am far from wishing to imply that he will make no answer and assign no cause. Even the narrowest necked bottles have a certain reputation for

eloquence, *after their kind*. And so have narrow-minded men of science. Hence the astronomer will probably discourse learnedly, copiously, and well. He will drown all your difficulties under a deluge of formulæ. If you are not a sifter of words and a weigher of terms, you may leave him with the impression that he knows all about the matter, and that he has even made it clear to yourself. But lay not that flattering unction to your soul. What is the fact? Mere idle words. *Vox et præterea nihil*. Sound, sound, and empty wind, vain pretence, fustian, and nothing more. He will talk glibly of "attraction," and "repulsion," and "force," and "energy," and "time," and "space," and "molecules," and "ultimate atoms," and "ether" ("questo mezzo misterioso," as the great Secchi calls it), and, maybe, impose upon you as upon others by this long jingle-jingle of scientific terms. He does not really unbandage our eyes, however, to let in the light, but calmly substitutes a dozen bandages for the one we ask him to remove. We may fancy we can see at length, but in truth we are still walking blindfold.

The scientific man, whether he be astronomer, naturalist, physicist or chemist, does but explain one unknown quantity in terms of a dozen other

unknowns. His a may indeed equal x , and his x may equal $y + z$; but what his y or what his z equals no mortal can so much as form the slightest notion. His whole system is and must ever be, from the nature of the case, one of *ignotum per ignotius* and *obscurum per obscurius*.

But to the demonstration. The requirements of space forbid us to dwell in detail upon each term employed in the supposed explanation of the astronomer. We must content ourselves therefore with one as a specimen, and its fate must decide the fate of the rest. It will be advantageous to take the most familiar of all the terms used, which is probably "ATTRACTION".

I will suppose that we have been studying the earth's elliptical movement round the sun. We wish to know why the earth should move along a circular path rather than in a straight line, and what prevents it darting off at a tangent. After expressing some surprise at such a very simple question, the professor will of course inform us that it is owing to the force of the sun's attraction. With this answer we shall be asked and expected to be perfectly satisfied, as though the whole mystery had been cleared up once and for evermore.

But I am not to be put off with a phrase. Impenetrable mysteries are not to be solved by

the bare magic of a word! It is only in fairy-land that doors spring open and bolts fly back at the cry "Open, Sesame!" You speak to me of attraction. But what is this attraction? Who understands it? What produces it? Whence comes it? Whither goes it? In what does it consist? I know what the term covers. Yes, its definition I can repeat as well as any parrot. It is "that invisible power in a body by which it draws anything to itself". It is no stranger to us. We see the action of this power in and on every material object in the world.¹ We may give it a name. More no man can do. Here our proud intellect must rein up and stop short. So far shalt thou go, and no farther. From this point the road is blocked. "No thoroughfare!" stands written in great unmistakable characters right across our path.

We may paste a label upon any box without so much as even suspecting the nature of its contents. That anybody can do. But what we want is to see it opened and its innermost secrets laid bare. Of course we are fully aware that the mysterious power which scientists have

¹"La gravità è una forza che regge tutto il creato, dal sassolino cadente sulla terra, alla Nebulosa che si va condensando nella profondità dello spazio."—*Le Stelle*, by Secchi, p. 341.

christened "attraction" exists, and that it acts. Are we not indeed under its strange influence ourselves? Why, it is this very attraction which keeps us bound to the earth; which hinders us from soaring at will into the clouds and paying a visit to the hinder side of the moon; which casts us rudely to the ground when we lose our balance; which holds us in its iron grip all our lives long; which masters us, oppresses us, and lords and tyrannizes over us in a thousand wondrous ways. Watch the infant taking its first lessons in walking. Watch him in his early encounters with this invisible foe. See how he is obliged to struggle with it. See how he staggers under it! Two steps, three, perhaps four steps, and this attraction has dragged him down. Never mind. Up, and on again! But observe: again the Invisible has seized hold of the Visible and brought him once more heavily to the ground. Strange, yes, passing strange! There are two wrestling here as certainly as any two ever wrestled in the public arena, yet one only can we see; he is well known to us, and we call him Tommy or Johnny, but the strange knight in the invisible armour who has entered into the lists with him keeps his visor closely drawn down. He will not reveal himself, and fights

under the *sobriquet* of Attraction. As we struggle with him, and feel the unseen pressure of his arms around us, and succumb again and again to the force which he wields, we are still in utter ignorance of his real nature and hidden quiddity. Yet scientists calmly refer us to this Attraction as to a clear and lucid solution in the case of a thousand difficulties.

Take another instance. We read in the *Times* that a certain man threw himself from on high—from the Monument, or from the cliff that juts out ten thousand feet above the shelving beach. But I beg to dissent. What! You tell me he threw himself down? Nothing of the kind. No man can throw himself down. The expression is not felicitous, nor rigorously accurate. The plain fact is, such a thing is impossible. *He* can no more throw himself down a thousand feet, than he can throw himself up a thousand feet. His share in the tragedy is a very modest one indeed. He merely steps like an imprudent beleaguered citizen beyond his natural defences—beyond the jutting rock, and so places himself within reach of this great power lying in ambush. This power, hidden and unknown, yet in its omnipresence and ceaseless vigilance reminding us almost of God Himself, is what we speak of as “the attraction

of gravity". This it is that stretches out its arms, as it were, seizes him in its irresistible clutches, and hurls him headlong, with the force of a giant, through ten thousand feet of space, and dashes him violently to the ground, where now he lies crushed to atoms.

The sincere Christian, fearing Him who can hurl not his body only but his soul also into hell (Matt. x. 28), is quite as "scientific" as our professor who fears to tread too near the treacherous edge of the cliff. If, indeed, a man will admit the unseen and inscrutable power in one case, and will contemptuously reject the unseen and inscrutable power in the other, for no better reason than *because it is* unseen and inscrutable, we may justly charge him with inconsistency and folly. He may, of course, question the evidence for supernatural revelation; but to deem such revelation unreliable (as many do) because it lands us in mystery, is a sad violation of reason and common-sense.

Truly, then, we know of the existence of attraction. We feel its power. We realise its presence. We experience its ubiquity. But explain it, fathom it, unravel its mysteries? Never! never! never! No one at bottom knows what it is. We see an effect. We do not see the cause. We merely argue a cause.

And we give the cause a name. That is the beginning and the end, and the whole extent of our knowledge. In the instance before us we label the unknown force "attraction". In other cases we label the cause "electricity," or "instinct," or "life," or "energy," or "endosmosis," and so forth. This being done, we proceed to transform ourselves into noisy windbags, and to inflate ourselves with pride, conceit, and other forms of barren emptiness and bombast.

Yet scientific terms are no expounders of mysteries. We are just as ignorant still, unless we can flatter ourselves that we know more of a process because we have got possession of its name. And what has been shown of attraction might be shown of all the rest of the scientific gamut. I have selected the term attraction in preference to any other, because it is so familiar and so widespread in its application. It does service in almost every branch of science. Like a finger-post it meets us at well-nigh every cross-road we come upon, as we journey through the intricacies of chemistry, mechanics, and molecular physics. Not only are we confronted over and over again with attraction of gravitation, but we have to do also with magnetic, diamagnetic and electrical attraction, and ad-

hesive, cohesive and capillary attraction, besides chemical attraction or affinity. Yet in all its various and multiplied applications this term covers, not knowledge but ignorance—and, let me add, an ignorance which we cannot dissipate, fly from, nor by any means escape.

Yet, in spite of this, the incomprehensibility of a doctrine is seriously urged as a reasonable motive for abandoning supernatural belief! All that need be repeated and insisted upon here is that the term attraction is not one whit more obscure or inexplicable than dozens of others which arise in every scientific explanation, such as “energy,” “force,” “time,” “electricity,” and so on. Hence, on maturer reflection it will appear that the learned astronomer who is supposed to be explaining one mystery is, all the while, only introducing on the scene a dozen other mysteries. Verily! this devil ignorance is hard to exorcise. When we think him dislodged he does but return with seven other spirits worse than himself, leaving us in a more pitiable plight than before.

A glance at some of the mysteries of the material heavens has convinced us of the hollowness of the pretentious claims to exhaustive knowledge concerning the dogmas of astronomical science. Let us descend from

regions of unmeasured space, with its blazing suns, rushing worlds, and flashing meteors, and see if we are any better able to deal with the objects in our own little rock-built earth. Whatever may be said of gigantic worlds removed from us by billions of miles, we may perhaps be excused for thinking that the common objects around—objects which we can handle, examine, study at leisure, place under the microscope, or throw into the retort—will be more amenable to our scrutiny. These at least, we might imagine, may be forced to deliver up their secrets. Vain hope. No martyr of old ever guarded his secret so closely, so firmly through fire and sword, torture, and the rack, as will the feeblest grain of sand or most insignificant beetle, twist and turn and torture it as you may.

We must endeavour now to illustrate the truth of this statement by an example. And to render the lesson the more effective, we will select as its subject not anything rational or even sentient, but merely a simple little plant, similar to those that grow by thousands in our fields and meadows—the lily of the field, pointed out long centuries ago by our Lord Himself as not altogether unworthy of our attention.

Suffer me to introduce the illustration by a somewhat extravagant supposition.

A mighty king, possessed of absolute power, holds undisputed sway over the whole world. His wealth and resources are exhaustless, and his subjects are at once the most able and the most obsequious that the earth has ever harboured. Now it so chances that among the plants and flowers adorning his palace is one for which he has conceived the highest admiration ; it is a perfect specimen of the common lily of the field. Its beauty, delicacy, and sweet fragrance have captivated his heart, and he determines—for kings sometimes have strange fancies—to get this flower accurately reproduced with all its parts and properties.

A proclamation is accordingly issued. Couriers are despatched to every part of the kingdom, summoning before his dread presence the wisest and most learned of the land. In due time all are gathered in the great hall of the palace ; his majesty then enters. With gratified pride he rests his eyes upon the renowned assembly. All the intellect of the age is there. Scientists, naturalists, mathematicians, biologists, geologists, and botanists by the dozen, as well as renowned explorers, observers, students, and philosophers ; some have brought the books they have written, others the instruments they have invented, or the

specimens they have bottled. These lie on a table in the centre of the room, and are very curious and interesting. There is a treatise in three volumes on the "Crico-arytenoidei laterales of the cricket's throat"; and another in six folios, bound in calf, on "The action of the cephalic and the pedal ganglion in the oyster"; then there are jars containing the intestines of the iguana, and the fœtus of the kangaroo, and brains and limbs of birds and beasts of all kinds, and of reptiles not a few.

As soon as silence is secured, the king, turning to his dutiful subjects, addresses them in the following words:—

"Most learned and illustrious Signors, I demand of you a simple thing. Confer, therefore, among yourselves; unite together in earnest consultation; strain your vast intellects to the utmost, and construct for me an exact and living copy of this small flower that you see before my throne. On my part, I promise to provide you with all the materials and appliances you need. You shall have an unlimited supply of chemicals, machinery, laboratories, retorts, alembics, etc.—in a word, whatever you desire. No expense or trouble will be spared. Take this lily, and make me a perfect model of it in form, texture, tint, scent, and in

every other particular. It must be so constructed as to be able to grow and to reproduce itself, etc. ; success will be handsomely rewarded, failure will be visited with instant death."

Their countenances fall. Impossible! As well bid them construct a continent, a world, yea, an entire universe.

The king, noting their dejection, adds these consoling and reassuring words: "Observe, there is no question here of creation—that I know belongs to God alone ; I do not ask you to create so much as a grain of dust or a particle of fibre. The flowers of the field are not *created* such ; they are produced from matter already existing. Every element which is destined to enter into the composition of next spring's flowers *already exists* in earth, air and water ; indeed, you scientists assure me that nothing is created or destroyed, though all is changed.¹ All the elements, therefore, of this flower are at your disposal and within your reach, if only you know how to get at them and extract them. All I request of you is to select and to build up the existing materials into a simple little plant."

But he might as well have commanded them

¹ See, e.g., Tyndall, *Heat as a Mode of Motion*, ch. xiv.

to encircle his royal fingers with the rings of Saturn. They are obliged to acknowledge their inability, and are marched off, at a brisk trot, to execution.

Meanwhile, the monarch turns away from these mystified magnates, and directs his attention to a dark, shapeless, scentless particle of matter lying on a golden paten before him : it is nothing more marvellous than a single small seed, the seed of the flower. Its appearance is exceedingly insignificant. There is nothing about it externally to excite wonder or admiration ; it is, in fact, almost indistinguishable from the pebbles and broken particles lying around. Yet the task which the wisest men refused—the task which all your Huxleys, Tyndalls, Darwins, Drapers, Arnolds and Clodds are powerless to execute—nay, at the bare thought of which they stand confounded—this small servant of God, this humble little weaver, will accomplish with unerring accuracy and the utmost perfection and despatch.

And what are its terms? It exacts nothing hard or impossible. A handful of earth, a little common air, moisture and sunshine are all it demands. From such existing materials it will construct flower and leaf, branch and stem, root and tendril, colour and scent. Out of darkness

it will bring forth the pearly whiteness of a fairy cup ; out of shapelessness, the fair proportions of a waving flower ; out of a sombre and repulsive particle of matter, a grace, a beauty and a richness of ornamentation eclipsing Solomon in all his glory—"Solomon in all his glory was not arrayed as one of these ".

Lay the seed in the ground. Hidden away there in its strange subterraneous workshop or laboratory it at once begins like a giant to arouse itself from sleep. Its whole being is soon palpitating with life. After feeding upon the surrounding moisture for a while till it swells and expands, it throws out a feeler here and a feeler there. Then, without drawings or plans or architectural designs, but guided simply by Him whose hand rests upon all, it commences to set about its task in good earnest. Without hands or arms it builds up—not accidentally, not at random, not anyhow—but in perfect order and symmetry, an elaborate and complicated structure. First it gathers and prepares the materials—hewing and cutting them, we might almost say ; it then lays atom upon atom, and particle upon particle, and cell upon cell, in strict conformity to a preconceived type and with a distinct view to an ultimate result, as a house-mason might lay stone upon stone and brick

upon brick in the construction of some regal palace. Or rather, with a skill, a deftness and a facility at which the most accomplished human labourer could never arrive. There is no precipitation, no excitement, no undue haste ; all proceeds in absolute calm, order and regularity. and with a precision which is simply mystifying. In fact—for we must relieve our thoughts—every stage in the process is instinct with the most unmistakable traces of the guiding presence of an uncreated hand. *Digitus Dei est hic*. The invisible molecules which are to be wrought up into leaves are not scattered over the stem ; what is destined for the chalice-cup is not carried to the roots ; each particle is carefully borne to, laid down, and fixed in its appropriate place.

We have visited the great factories and cotton mills of Lancashire and the North. We have watched, with wondering admiration, the ponderous and complicated machinery giving birth, in much travail and noise, to cloth and diaper, and weaving the finest of gossamer threads into all kinds of fancy fabrics, while tracing on them a score of different-coloured patterns. Much have we marvelled at such inventions of man's industry and genius, but here is something more worthy of our admiration, something far more

wondrous still. The seed weaves without loom or spindle, spool or flax ; yea, weaves a texture which, in delicacy of workmanship, beauty of tint and silky softness, cannot be equalled nor even approached by any machinery in the world. Without organs of sight or power of vision it adorns the fabric, as it weaves it, with a thousand rainbow hues. Without gold it gilds the stamens' tips till they seem to burn in the sun, and without palette or paints it covers the petals with a snowy whiteness, and stains the leaves with emerald green.

Nor is this all. It also plans and excavates the thousand hidden channels and microscopic aqueducts along which flows the invigorating sap, circulating through every leaf and tendril and fibre from one extremity to the other, while, with its roots so admirably adapted for the purpose, it grasps and clutches the stones and pebbles for strength and support.

It draws from the earth, or absorbs from the atmosphere, all the building materials it needs. Not, however, indiscriminately, not seizing at haphazard (if we may so express it) whatever it chances to lay its fingers on, but selecting and choosing most accurately only what will best serve its purpose. If, for example, molecules of carbonic acid, potassium, ammonia, sodium

and of water lie within reach, the plant will leave untouched the potassium and the sodium, but will eagerly gather up the atoms of water,¹ ammonia and carbonic acid, exhibiting, in truth, a nicer and more infallible sense of distinction than the most fastidious gourmand in the selection of his food.

Yet to gather particles from the earth, to waylay the richly laden summer breeze² as it hastens by, and to rob it of its carbon, etc., is but the least marvellous part of its task. It must not only gather molecules from without, it has also to distribute them judiciously within its own mysterious organism ; to repair the waste from wear and tear, to keep its delicate hues ever fresh and bright the summer through, to replenish unceasingly its waving censer with the sweetest of fragrant incense, and what is more wonderful than all, to construct and elaborate from its entrails new seeds and principles of

¹ "Die Hauptmasse des emporsteigenden Wassers hat nur die Bedeutung eines Transportmittels für diese aus dem Boden in die Pflanze gelangten mineralischen Salze ; nachdem es in die Blätter gekommen, verdunstet es zum grössten Theile wieder in die Atmosphäre."—*Pflanzenleben*, von A. Kerner von Marilaun, vol. i., p. 260, 1887.

² "Le piante respirano come gli animali : il loro polmone è principalmente rappresentato dalle foglie, seminate di stomi, cioè di migliaia di boccucce, destinate ad introdurre il fluido vitale."—*Acqua ed Aria*, by Antonio Stoppani, p. 371.

future life, endowed with the same strange constructive powers and properties exercised by itself, powers and properties which it seals up, as it were, and puts away in the ovary for future use, to be called into play a year hence, or perhaps, as it has been said in the case of seeds found in Egyptian mummies and tombs, not till thousands of years have rolled their weary lengths along.¹

Here we have roughly sketched, as though with a few rude strokes of the pen, the process of growth as we find it exhibited by a single seed ; one selected at hazard among the billions that are scattered with regardless profusion over the earth, and swarm in every nook and cranny and corner throughout this spacious world. That this process includes a great variety of phenomena besides those I have pointed out, must be patent to every one. The special point,

¹ There seems no *theoretical impossibility* in a seed keeping for ever, provided the requisite conditions be maintained. But it is exceedingly difficult to suppose that such essential conditions should never have been interfered with even in an Egyptian tomb, during so vast a period. Hence much doubt has been cast upon the possibility of *actually verifying the above statement*. Still, it is a matter of no consequence, for it is quite certain that (as a well-known writer on botany asserts): "Seeds may retain their vital properties for years, and even for centuries, till opportunities offer for the due germination of the ovule contained therein". The author has something more to say on the subject of "mummy wheat" in his Introduction.

however, which I wish to press home, is their essentially incomprehensible character.

If we betake ourselves to the profoundest scientist—to him who superciliously refuses to stoop to the incomprehensible even in matters of faith, and who scoffs at Catholics because they accept doctrines above the reach of reason, and ask him to dissipate the darkness for us, and to clear away the mist of ignorance which dims our mental vision, will he afford us any true help? Can he lead us to the brink of any one of the many deep seas of mystery that hem us in, and give us eyes to see down, deep, deep down, into its impenetrable depths? Shall we find bottom with his little plummet any more than with our own?

At all events we may make the attempt. We approach the oracle with befitting reverence and awe. But it is the same old story. Here again, as with the astronomer, we are asked to accept words for explanations, and incomprehensible terms for elucidations, as though two blacks could by any possibility make a white, as two negatives will make an affirmative.

He cannot give an exhaustive reply, but he will attempt to put us off by referring us to the action of "chemical affinity," "solar radiation," and "absorption," and will doubtlessly

lay considerable stress on the influence of "endosmotic action". In fact he will, in learned words, really explain nothing whatever. The terms themselves in which the so-called explanations are couched enclose mysteries as deep as the very processes they are intended to explain. As well throw a bucket of salt water over a man's head, to teach him the cubic content of the Atlantic. Properly interpreted, the sententious reply of the professor would run somewhat as follows: "Sir, we have spent our lives carefully studying and watching the various phenomena included under the term growth, and though it is hopelessly impossible for us to know anything whatever about their essence and intimate character, yet—as we may frequently have occasion to refer to them—we designate them by learned Latin and Greek names, which at all events possess the merit of deceiving the vulgar by an appearance of erudition, though they are in reality only labels, marking, but in no way elucidating, unaccountable phenomena. This, indeed, you will find we not unfrequently admit¹ in our published works. All we are able to offer you therefore, in the form of a reply, is a list of the names by

¹ For an instance of such admissions, see Tyndall's *Fragments of Science*, p. 420, 1876.

which scientific men have agreed to designate the many unintelligible processes that have been observed, and may still be observed, in actual progress throughout the limitless expanse of nature. To pretend to give you a really exhaustive and complete account of the simplest object in nature—of the jellyfish, for instance, or even of a single one of the delicate extensile filaments or tentacles that hang from the margin of its disc ; or of the process of assimilation in the amœba ; or of the organs of vision of the rotifers and other microscopic animalculæ inhabiting almost every pond in millions—would be to pretend to a power and an insight to which we are fully conscious we cannot offer the slightest claim. In fact, we are absolutely constrained to accept so many inscrutable mysteries in the order of nature, that really we must decline to entertain any of those you propose to us in the order of grace.”

The simple unvarnished truth is that all the Huxleys, Tyndalls, Harrisons, Drapers, Cliffords, etc., etc., that ever were, are, or ever shall be, could not construct for us the tiniest insect that crawls, nor the simplest flower that blooms ; no, nor one small claw or gauzy wing ; nor a leaf or rootlet of the humblest moss or liverwort. What, construct ! Why, they can-

not even explain any one of these things after it has been constructed. If interrogated they will ring out their sad changes in the old familiar style :—

Ding Dong ; Ding Dong.
Affinity, Radiation, Absorption,
Absorption, Radiation, Affinity ;
Capillary attraction and Endosmosis,
Endosmosis and Capillary attraction.
Ding Dong ; Ding Dong ; Ding Dong.

Though all this is very humiliating to our pride, it should hardly be a matter of astonishment, for God warned us centuries ago that “the number of fools is infinite”. All men are in reality babes concerning the essence of things. In so far as their relation to the sum total of all truth is concerned, the difference between a philosopher and a fool is really but trifling, and lies chiefly in this—that while the philosopher knows he is a fool, the fool is too foolish to do more than vaguely to suspect it, and even that only now and then in his more lucid moments.

Yet to realise our folly is of vital consequence ; it is the first condition for the exercise of faith. Why do men start and draw back when divine truths are proposed to them—such as the holy Eucharist, the Blessed Trinity, or the Resurrection of the dead ? Mainly because they cannot

imagine how such things are possible ; because they are unable to suggest to their own minds any plausible explanation or to fashion any satisfying theory whatever as to how such things can be. They are unwilling to acknowledge distinctly to themselves the limited range of their mind, or to make a sincere act of humble faith in God or His Church. They think trust in an infallible voice to be credulity, not understanding that, in the words of De Lamennais, “ Le plus haut degré de crédulité est la foi en soi-même ”. As P. Juan de Mariana quaintly observes, “ The last shirt that clever men take off is pride ”.¹ Many a wiseacre is to be met with in these days who will declare with no little petulancy his utter want of belief in the most essential doctrines of faith. “ This,” he will say, “ cannot be ; that is impossible ; ” and as for the other, well “ it does not commend itself to my mind, and I can’t accept it.”

Commend itself to thy mind, indeed !

O, poor little worm ! wriggling in thy clayey bed. Thou strange admixture of pride and folly ; thou pitiable and ignoble combination of arrogance, conceit and stupidity ; who troubles himself about thy mind ? What is the mind of

¹ “ La última camisa de que se despojan los hombres sabios es la soberbia.”—*Harmonia entre la Ciencia y la Fe*, p. 192.

a Plato, or an Aristotle, or a Solomon, compared to the mind of Him who with a breath formed all mind as well as all matter from nothing? It is as darkness to light, as night to day, as nothing to infinitude. The least among the invisible infusoria, or other animalculæ whose universe is a drop of water, is not so ignorant of thee, of thy thoughts, life, character, interests, feelings, desires, faculties and gifts, as thou art ignorant of the power and the wisdom of God. Yet if such a tiny speck could reason, and should deny existence to thee, because forsooth it is unable to make thee fit in with its silly raindrop theory of the universe, it would not present such a ludicrous spectacle as thou dost when rejecting God and His revelation. The attitude thou assumest escapes being ridiculous only by becoming so abominably blasphemous.

How cramped, confined, and straitened is that puny mind of thine with which thou presumest to investigate the secrets of God! Thou livest truly, yet thou knowest naught of life. Thou thinkest, but canst not explain thought. Thou dost feel, but in no way canst thou account for feeling; thou dost move, but motion is to thee a mystery unfathomable. Go to! When thou hast first disentangled somewhat for us the mysterious web of this life we may perhaps

listen to thee with greater patience, discoursing on the secrets of the next. At present thy presumption impresses us more deeply than thy wisdom. The wisest of philosophers cannot fathom the wonders contained even in a drop of water ; and hast thou fathomed the depths and measured the altitudes of the Infinite and the Omnipotent—that thou dost preach and prattle so freely concerning the impossibility and the incredibility of the mysteries of divine revelation?

God is not a myth because thou failest to make Him out, nor are His doctrines false because thou canst not fathom them. Though the sun be set and sunk below the horizon, who will persuade himself that it has wholly ceased to be, because thou canst not descry it all at once, with thy dim rushlight or flickering tallow dip? No! Nor, to speak the truth, do we feel bound by any irresistible pressure of logic to declare the ocean bottomless because thou canst not reach the bottom with thy alpine-stock, pilgrim's stave, umbrella or any other contemptible human contrivance or yard-measure whatsoever.

If, indeed, this base and palpable earth envelop itself in a thousand mysterious wrappings, so that we can in no way unfold its secrets—if,

in spite of all the scientific "open sesames" with which the wise supply us, its trap-doors still remain doubly barred and wholly indifferent to our halloaing and shouting—we shall not be utterly foolish, perhaps, if we still think that mysteries may lurk in the spiritual and supernatural world, of which this is but a rude and unworthy shadow. It may perhaps be old-fashioned to believe in the revealed mysteries of God, but God Himself is not of yesterday; and all truth is old—and old, because, like God, eternal.

In conclusion, it may be useful to remark that, when attempting to treat with agnostics and scientific infidels on religious subjects, two distinct sets of difficulties rise at once into prominence. The first set arises from (1) the very nature of the *truths themselves*; the second from (2) the nature of the *evidence* upon which these truths rest.

As regards the first. It is well known that many persons are repelled solely by the *incomprehensible character* of the dogmas of faith. Just that, and nothing more. Accustomed to deal always with the tangible and the palpable, they seem to experience an insuperable repugnance for all that is supernatural and spiritual; and can scarcely ever be induced to give such

subjects the attention they deserve. To answer persons of that class, it appears to me very necessary to bring out into prominence the fact, which even the more learned among scientific men do not acknowledge to themselves with *sufficient explicitness*—*viz.*, that the material universe swarms with impenetrable mysteries. By rendering this fact clear and conspicuous, men's minds will not merely be led to acknowledge the possibility of immeasurably deeper secrets in the invisible and spiritual world, but will be led even to anticipate and to expect them with a confidence amounting almost to positive certainty. Knowing further that, by means of the five senses, God is daily revealing, without explaining, a vast number of natural mysteries, they will readily admit, even *à priori*, the probability of His having revealed, also without explaining, a vast number of supernatural mysteries—not of course by means of the senses, but by other means more in harmony with the supersensible character of such truths.

Now, as regards the second set of difficulties. It is an undoubted fact that many scientists, while fully recognising the incomprehensibility of the phenomena of Nature, yet accept them unhesitatingly, because of the irresistible force of the evidence of their reality, which streams

in upon them through every sense. What therefore hinders these from believing, is not so much the incomprehensibleness of the dogmas of faith *in se*, but rather the character of the evidence upon which they rest—the real strength of which they are either unable or unwilling to appreciate.

In the present chapter our attention has been *confined exclusively to the first set of difficulties*; it remains for us in the next chapter to complete the argument by showing that while from the very nature of the case the supernatural must need a different kind of testimony from the natural—sense being no more competent to discover things spiritual than blindness to discover the laws of optics—that nevertheless the evidence actually accessible to us (while remaining essentially different in kind) is yet as reliable, as satisfactory, and even yet more firmly established, than that which supplies us with proof of the sensible phenomena of daily life. But of this we will deal in the next chapter.

FAITH AND REASON.

"The strength of the donkey mind lies in adopting a conclusion inversely as the arguments urged, which, well considered, requires as great a mental force as the direct sequence."—G. ELIOT.

"Nonne cum omni confidentia Deo dicere poterimus:—Domine, si error est, a Teipso decepti sumus; nam ista in nobis tantis signis et prodigiis confirmata sunt, et talibus, quæ nonnisi per Te fieri possunt."—RICHARD OF ST. VICTOR (*De Trin.*, l. i., c. ii.).

IF we cross-question the typical twentieth-century agnostic, and ask him the cause of his rejection of Christianity, we shall generally find that he seeks to justify his position on one of the following grounds. Either he will say: (1) I cannot accept Christianity because I will never accept what is unintelligible and incomprehensible, and Christianity is a veritable tissue of incomprehensible dogmas and unfathomable mysteries; or else he will say: (2) I refuse to acknowledge the Christian Faith, because the evidence in support of it is insufficient, and incapable of bringing conviction to any prudent and practical man.

The absurdity of the first plea has already been considered. We pointed out in the last chapter that to reject all mystery is in sober truth to reject all knowledge, and that to deny the incomprehensible, because incomprehensible, is to deny all the most necessary and universally accepted truths in Nature, beginning with our own existence, birth, growth and faculties (whether of body or of soul), all of which involve mysteries which no man living is competent to solve; and so forth.

Having disposed of the first plea, it now remains for us to say something about the second—*viz.*, the alleged insufficiency of the evidence, which is the favourite justification of most unbelievers.

It is hard to answer triflers such as these. They seem to live in an atmosphere of such humility and self-righteousness. Their modesty and condescension are almost embarrassing. They will not censure *us* for believing. Oh, dear no! They feign rather to envy our happiness. They only wish that they could believe too. It would be such a luxury, such a consolation. They are ready—in fact they are positively anxious to be persuaded, “if it were only possible, don’t you know”. But they can’t. The fact is they are far “too wide awake,”

and have none of the requisite simplicity. In short they "really cannot bring themselves to renounce reason altogether," and to begin again at their age to walk in "leading strings". They must reluctantly "decline to substitute phantoms for facts," however delightful it would be, and so forth. Yet they will trust science; true. But then that is quite another thing. Science offers a clear and convincing demonstration, but no such demonstration is forthcoming in the case of religious dogmas, and they tell us that they are not going to trust the *ipse dixit* of any man—not even a man with a white choker and a shovel hat!

Concerning such as these we will content ourselves with the following observations:—

When a man objects to a truth because it has no ocular or experimental proof to support it, he tacitly assumes that no evidence of any value exists which is not intrinsic. He seems wholly to ignore the fact that truth may be arrived at by two perfectly distinct routes. We may certainly ascertain truth by actual experiment and personal investigation, but we may also receive it on external authority.¹ Although the

¹ "Certitudo potest considerari dupliciter, uno modo ex causa certitudinis, alio modo ex parte subjecti."—*Vide* St. Th., ii., ii., 4-8c.

second method is essentially different from the first, it is not on that account any the less reliable—indeed, there are cases in which it is far more so. Although, in this or that particular instance, authority may be untrustworthy, still THE PRINCIPLE OF AUTHORITY AS A CRITERION OF TRUTH cannot be objected to in itself. It is a principle which, whether consciously or unconsciously, is accepted and acted on by the whole human race, in every age and in every country. So essential and unavoidable, indeed, is this principle, that to rigidly eliminate it from this workaday world would be, not merely to arrest all advance, but to render even existence itself impossible. The first act of reason is an act of faith. Destroy faith, and all activity and all progress becomes atrophied. We tell the child to eat, and it eats ; to drink, and it drinks. Were it necessary first of all to prove the nutritious qualities of the food, its freedom from poisonous elements, and the death resulting from refusal to eat, what would become of the child ? So, again, if you tell a traveller that by following a certain specified route he will reach the town to which he is bound, he believes you. But were it necessary first to demonstrate your assertion, an eternity might elapse before he would be satisfied of so much as the very

existence of the place. Even in science and art, who is there that does not place faith in the declarations of specialists? The assurances of a physician are sufficient grounds for my putting his advice in practice, and I follow his prescriptions without first demanding a rigorous demonstration of their suitability to my complaint ; just as I swallow the medicines, when made up by the chemist, without submitting them to an analysis or to any other test. When a fisherman puts me up to some special trick to catch the wary trout, or a keeper describes the favourite haunts of teal or curlew, his word is my only guarantee, yet I act upon it. So again, we accept what Buffon says of the habits of animals, without thinking it imperative to watch and study each creature for ourselves, and when Lubbock discourses in his charming manner on the instincts and peculiarities of wasps, bees, and ants, we feel in no way constrained to suspend our belief in the accuracy of his general statements, till we have thoroughly sifted each one for ourselves.

A young man at the end of his university course possesses the knowledge of a very wide and varied range of truths. Yet in the case of most of them—for instance, in the case of truths of history, and literature, and biography,

and geography—his knowledge rests almost entirely upon authority. His acquaintance even with truths of science and chemistry, of botany, metallurgy, astronomy, and most other “ologies” are, *to a very considerable extent*, dependent upon the same source. This is indeed inevitable since the longest life is far too brief to prove by strict argument one tithe of the conclusions on which our minds now readily fasten with a sense of perfect security; while, in the case of a great number of facts, no process of argument exists by which they could ever be demonstrated so as to compel assent. This holds good, not of abstruse and complicated questions only, but even of such as lie on the very surface of our minds. That Tommy Smith, *e.g.*, is Joe Smith’s son may be a certain fact. Tommy has lived all his life under that impression. He has no doubt on the subject. But is he justified in believing it, or is he a fool for his pains? Well, if authority be not sufficient evidence, then for him no sufficient evidence of the truth exists. I defy any one to prove the point to Tommy Smith’s satisfaction if all appeals to authority are to be rigorously excluded and discountenanced. Old Jinkins the doctor, and Mrs. Boodle the midwife, as well as father and

mother, may swear to the fact, but all to no purpose, since such arguments are appeals to mere authority ; and authority is at a discount. It is not scientific ? Perhaps not. But is it any the less worthy of credit ? The fact that Tommy has always been treated as a son ; that Mr. Smith has birched him when a child, sent him to school at his own expense, and paid his debts, and bailed him out of prison, and treated him always as one of the family, may afford undoubted indications of real affection, but no certain proof of sonship. Men have done more for adopted waifs and strays. It is the parents' testimony that is alone conclusive ; but for that, Tom's relation to Mr. Smith must be classed with the thousands of other unproved opinions.

What is so clearly seen in the above case, holds good of millions of facts concerning which we would no more think of doubting than we would think of doubting our own identity. To strike off the list all truths that we are unable to verify by a strict and irresistible demonstration would be to rob us of ninety-nine hundredths of all the knowledge we possess. Business and commerce would be impossible ; art would become palsied ; and all social progress would settle down to a standstill. Life itself would be unendurable, and stunted beyond the power of

words to describe. We are saved from such consequences, solely because men are more logical than they profess to be, and because even those who are loudest in their denunciations of faith are compelled to stultify their own teaching and to eat their own words by exercising faith at every turn.

If then it be true, that we are accustomed to accept thousands of truths, *even demonstrable truths without any demonstration*, because life does not afford time to scrutinise and examine for ourselves all that we find it incumbent upon us to believe, it is likewise true that many facts exist which we are simply *incapable* of testing, and which do not admit of any other proof than authority. But if authority be motive enough in the first case, it is difficult to see why it will not suffice in the second.

We believe most firmly that Lord Macaulay lived at the beginning of the nineteenth century ; nothing could shake our faith in that ; yet we can point to nothing but authority for our belief. Even if his works, and his very manuscripts, be pointed out to us, how are we to assure ourselves that they are really his, except upon the same ground ?

We believe in the existence of China, though we have never been even within sight of its

coast. Nor is this a probability more or less great. It is a certainty. We have no more doubt of its existence than we have doubt of our own existence. Yet on what does our faith rest? Upon the declaration of men; upon the assurances of travellers, historians, and of pig-tailed pagans who represent themselves as natives of that country.

Indeed, the least reflection will at once convince us that authority is as sufficient and solid a basis of truth as any direct evidence adducible, our only need, in evidence of this kind, being to satisfy ourselves that the special authority to which we appeal is a reliable and a trustworthy one. This once shown, the truths proposed will be as certain as a proposition in geometry or as any personal experience.

That such a reliable authority exists in support of the truths of the Gospel may easily be shown.

Before attempting to point this out, it will be well to begin by reminding our readers that religious truth, and the dogmas of faith generally, do not admit of being proved in any other way. It is intrinsically impossible to demonstrate mathematically, or to prove by any mechanical process, or by personal observation, the power of absolution, or the spiritual effects

of Baptism : nor are such doctrines capable of being verified by any natural means whatsoever, lying within our reach. They are concerned with what is wholly and entirely, and by their very nature, above the reach of all experimental methods. It must be evident to the meanest capacity, that if truths of the supernatural order are to be known at all, it can be only on grounds wholly other than those upon which we come to a knowledge of most natural truths.

This being the fact, it is unreasonable to ask, as a condition of their acceptance, that they be demonstrated in the same manner as the truths of science. To reject supernatural mysteries because they are incomprehensible we have already shown to be absurd, but to reject them because we cannot apply to them our pet methods of proof is more absurd still. To reject a supernatural doctrine because it cannot be made to answer to a purely natural test is utterly ridiculous. It is to deny sound because it cannot be weighed ; it is to deny the solar spectrum because it cannot be felt or tasted, or served up on toast, for breakfast ! Truth, if it come to us at all, must in every case come in a manner conformable to its nature : we can get no knowledge of taste through our ears, however keen ; nor will our eyes, though pierc-

ing as an eagle's, ever convey to our brain a message from the realms of sound and harmony ; nor will all our senses put together give us any inkling of the nature of the invisible and super-sensitive world, or of the conditions of meriting eternal life. If such knowledge is to be ours at all, but one way lies open, and that is the way of authority. But does any sufficient and reliable authority exist ? This is the very keystone of the arch. The whole case for Christianity turns upon this cardinal point, and must stand or fall with it.

It would occupy far more time and space than lie at our disposal to draw out, with anything approaching completeness, the motives of our belief. We shall therefore sketch only the barest outline, without attempting to fill it in, and do no more than suggest the arguments which go to prove the reliableness of the voice to which we trust, without entering here into their development.

On a certain date in the world's history a man of humble birth and obscure parentage appears in the country part of Judea. Without any education or special training, He begins to teach and instruct all who will listen to Him. He declares Himself to be the Lord and the Creator of all things ; one who will hereafter

come in great power and majesty to judge the whole world. He claims a positive and inalienable right to the absolute obedience and love of every creature who is capable of obeying or loving. He lays down a precise doctrine, He issues special laws, He institutes seven sacraments, He imposes certain conditions for forgiveness of sin, and for entrance into heaven, whose portals He opens and shuts at will. In a word, He founds that religion for which thousands have cheerfully died, that religion which we are accused of professing on insufficient grounds, and teaches the various mysterious truths which scientists reject, because we have no scientific demonstration to offer in their support.

Now we, as Catholics, of course, have no more doubt of any article of faith than we have of the clearest proposition in Euclid, for, though the character of the motive be in the two cases perfectly distinct, the strength of the motive in the first case is as great—indeed, far greater than in the second case.

When Christ appeared in the world men were quite as sceptical and as ready to doubt as now. And, if possible, they were more eager than now for the pleasures and the good things the world had to offer them, and more hungry for

sensual enjoyments and the luxuries of life. So that, though they might have listened with patience to a lax doctrine and an easy-going morality, they were by no means ready to embrace without a motive, and a very strong and convincing motive, a doctrine which enjoined self-denial, penance, a strict life, and obedience to precepts most opposed to nature. They would have insisted upon knowing the necessity of such self-discipline and restraint, and on what authority Christ undertook not merely to lead them, but to force them, under threats of eternal punishment, to live according to a standard so far above that to which they had been accustomed.

They would no more have listened to Him had He failed to prove His claim, than they listened to any one of the many impostors that appeared in previous ages.

They demanded what every thoughtful Christian demands at the present day, *viz.*, solid and convincing proofs of the trustworthiness of the authority speaking. The world would have given Christ no more credit than any other, had He not shown Himself unmistakably more worthy of credit. Neither we nor any sensible man can accept anything that He says till He satisfies our minds that

He is a heaven-sent messenger ; the Son of the living God ; knowing what none but God can know. He must convince us that He is what He represents Himself to be before we can rest satisfied of the truth of any single supernatural doctrine that He propounds, or of any single law that He promulgates.

It is a gross and insolent libel to pretend that we are less particular as to our grounds of faith than infidels and agnostics. When they have shown interest enough in the possession of truth to die, by thousands, in its defence, as Christians have died in defence of their religion, they may dispute this claim with us. At present there is no room for dispute.

Christ satisfied the minds of His followers, and confirmed His assertions by tests which none could dispute, and which were overwhelmingly convincing.

He showed who He was by what He did. His acts proved Him to be above all law, and above nature itself. He changed, transposed, suspended, or reversed at pleasure the most intimate properties and qualities of things, as no one could have done who was not Master and Lord of all. The diseased grew well under His touch, and the languid strong. He had but to speak a word, and the blind saw, the

deaf heard, and the dumb spoke. Even the dead obeyed His voice, and rose again ; and Lazarus, though fallen to corruption, sprang to life at His bidding. The tempests were instantly stilled at His command, and the winds and the seas recognised His voice. He walked on the waves, He multiplied the loaves, He changed water into wine, and infused heavenly wisdom and the courage of martyrdom into poor, ignorant and weak men, and proved in a thousand ways the power and authority to which He lay claim. It was not through ignorance and stupidity, but in consequence of such wondrous miracles that people believed in Christ, as in the case of Nicodemus, who said : " Master, we know that you come from God, because no one could do the works that You do if God were not with Him " (John iii. 2). The most convincing and crowning proof of all is perhaps His own resurrection, which, while the most striking, is at the same time the most incontestable of all His marvellous acts. To these we must add the fulfilment in His own person of prophecies, which were made centuries before, foretelling the special circumstances of His birth, life, passion, death and resurrection, as well as the time and circumstances of His advent. Micheas (v. 2), seven hundred years

before the event, foretold that He would be born at Bethlehem; Isaias that a virgin would be His mother (vii. 14), and so on with regard to a large number of other circumstances. Ages before His birth, Moses, David, Isaias, Jeremias, Aggeus, Zacharias, Malachias, all bore testimony to His life and character—a testimony, be it noted, fully borne out in His history. These prophecies and their accomplishment, when thoroughly gone into and viewed in all their bearings, afford evidence which it is impossible to explain away, and equally impossible to deny.

A further proof of the reasonableness of our faith arises from the whole course of the world's history, especially since Christ came upon earth.

Our reliance upon the all-sufficient authority of Christ, considered merely as an historical personage, rests not only upon (*a*) the absolute stainlessness of His character, (*b*) the sublimity of His doctrine, (*c*) the beauty and virtuousness of His life and death, (*d*) the innumerable miracles that He wrought, (*e*) the events He prophesied, (*f*) His resurrection and ascension, etc.;¹ but also on the social changes it wrought,

¹The chief motives of our belief in Christianity are fairly summed up by Mir, *viz.*: "(1) Su santidad eminente, (2) su pro-

and the extraordinary effects it produced among men. These effects are nothing more nor less than inconceivable on any other hypothesis, but that Christ is God. But if He be God, then and therefore His word is divine and of authority enough for any reasonable being.

He drew around Him, when on earth, and continues still to draw after Him, vast multitudes, who, following in His footsteps, resist their natural appetites, and forsake all the illicit pleasures of the world. He has won the hearts, and still controls the wills, of myriads, not by the violence of arms, not by the promise of worldly honours or rewards, but independently of all such motives by the mere force of His teaching. In the very face of persecution, and with imprisonment, torture, and death before them, hundreds of thousands of men, the learned and the wise, as well as the ignorant and the

digiosa propagacion, (3) su fecundidad inagotable en toda suerte de bienes, (4) su admirable unidad, junta con universalidad y extension prodigiosas, (5) su constancia, su permanencia y estabilidad desafiando á todas las potestades del infierno ayudadas de las concupiscencias imponderables de que es capaz el depravado corazon del hombre, estas y otras mil prerogativas admirables hacen de esta Santa Iglesia un argumento gravísimo, perdurable, é invencible de la verdad de los misterios que propone, y un testimonio irrefragable de su origen y legacion divina".—*Harmonia*, etc., by El.P. M. Mir, p. 122.

simple, have hastened to acknowledge Him as King and Master ; they have embraced with enthusiasm a religion, teaching doctrines exceeding the range of the most gifted intellect, imposing commands of the highest virtue, and prohibiting all the luxuries and sensual joys of life, and inspiring a contempt for all that is in the world. That millions should cheerfully assent to such doctrines is indeed a stupendous miracle, and manifestly the effect of a divine impulse ; for on no other grounds can we conceive multitudes of men, such as the saints and religious of all ages, contemning all visible things to live only for the invisible. As St. Thomas points out, the conversion of the world to Christianity through the person of Christ is evidence enough (even apart from the other sources of proof) of the truth of Christ's statements ; and he adds :—" If the world had been induced to believe what is so unimaginable, to do what is so hard, to hope for what is so exalted, without miracles or supernatural signs, on the mere persuasion of a few illiterate men, it would be the greatest miracle of all " (See St. Th., *Contr. Gen.*, l. i., c. vi.).

Study the condition of the pagan world in the time of Christ, and the condition of the world of to-day. Contemplate the contrast, and then ask yourself, How was the change

effected? By the power of Christ alone. He selected twelve men from the lowest ranks of the people; He sent them to deliver His message to the four corners of the earth, and the earth heard and believed them. His teaching prevailed in spite of every species of opposition, and penetrated into the most distant countries. It passed through the crucible of the severest trials. The blood of an innumerable host of martyrs testifies to the violence of the opposition that it met with from physical force, while whole libraries of volumes prove the severity of its struggle with hostile philosophies and adverse critics. It has sustained a tremendous and prolonged warfare with the civil powers, with ambitious princes, with learned disputants, and survived attack after attack, while the most violent passions, interests, and prejudices of men have proved powerless against it. The united efforts of every form of opposition have sought to destroy it, and it has triumphed over all. And "what means," asks Balmes, "did the propagators of Christianity employ? Preaching and example confirmed by miracles. These miracles the most scrupulous criticism has not been able to reject, and if it should reject them, it is no matter, for then must be admitted the greatest

of all miracles, the conversion of the world without miracles."

It must be borne in mind further, that "Christianity has counted among its children, men the most eminent for virtue and learning. No nation, ancient or modern, has risen to the degree of civilization and culture to which those who profess it have reached. About no religion has so much been disputed and written as about the Christian. Libraries are filled with master-works of criticism and philosophy due to men who humbly bowed their understanding to the yoke of faith; therefore that religion is beyond the reach of the attacks which might be made against those which sprang up and prospered among gross and ignorant peoples. It has all the characteristics of being true — divine" (Balmes).¹

We have seen that there are two methods of arriving at truth: the direct method, or

¹ Pius IX. says (in his Encyc. 9 November, 1846): "Quam multa, quam mira, quam splendida praesto sunt argumenta, quibus humana ratio *luculentissime evinci debet*, divinam esse Christi religionem et omne dogmatum nostrorum principium radicem coelitus accepisse," etc. After quoting these words, Scheeben observes: "Der Ausdruck '*evinci debet*,' statt '*convincitur*,' deutet an, dass der Beweis die *convictio* nicht mit absolut zwingender Nothwendigkeit aufdrängt, sondern bloss die Annahme derselben fordert," etc.—See the whole *zweiter Theil*, pp. 300-320, *Kath. Dogmatik*.

Upon these, as upon a most firm basis, our confidence in Christ as a heavenly-sent messenger rests. Long and learned treatises might be written upon each point in succession.¹ And while any one taken singly would be enough to satisfy an unprejudiced mind, their collective force, when focussed, is irresistibly strong and cogent.

From this we conclude that we are fully justified in accepting the teaching of Christ, and that, in professing with unwavering confidence the Christian Faith, we are acting as thoroughly reasonable and prudent men. It would need but little to show that, as the proper exercise of reason leads by God's grace to the acquisition of Faith, so the acquisition of Faith leads in its turn to solid peace and true happiness.

Luce intellettuali piena d'amore,
Amor di vero ben pien di letizia
Letizia che transcende ogni dolore.

(Dante, *Parad.*, xxx.)

¹ Each of the following points, touched upon by St. Augustine, might be expanded into a treatise:—"Consensus populorum, miraculorum frequentia, successio Pontificum continua, catholicæ nomen justissimo titulo possessum, martyrum constantia, prophetiæ donum, sanctimonia et sapientia doctorum et aliorum catholicorum, conformitas cum Scriptura sacra," etc. (Aug. Ep. adv. Manich, c. 4).

EVOLUTION AS AN ARGUMENT FOR THEISM.

“He was perfectly satisfied that there was no God at present, but he believed there would be one by and by; for as the organisation of the universe perfected itself, a universal mind, he argued, would be the result. This he called the system of progressive nature.”—SOUTHEY.

To seek for proofs of God's existence may seem to many of our readers as useless and unprofitable a task as that of groping about on a broiling hot day of summer in search of the sun, which is all the while shining out above our heads in dazzling splendour and magnificence, and being reflected in a thousand varying tints from countless objects in earth and sea and sky. Yet a mere glance at the current literature of the day is enough to dissipate such a fond delusion and to show that a large number of minds are far from regarding this great central dogma of Catholic truth as at all settled. To many it is still a question to be proved, and discussed, and many minds have become disturbed and agitated in attempting to grapple with the objections and difficulties against it,

that are being daily echoed and re-echoed on every side.

To produce this state of harrowing uncertainty, the modern system of evolution, which, after all, looks very much like the ancient doctrine of metempsychosis, decked out in a new dress to suit the exigencies of the times, has contributed not a little. It has done this, curiously enough, in spite of the fact that nothing so plainly shows the absolute need of a cause distinct from the world itself, than this very system of evolution, nor is there anything that so impresses the thoughtful student with the necessity of a Creator.

Let us make an attempt to draw out this truth in a rational manner. In order to grasp the situation more completely we must take as wide a range as possible, and begin by placing before us, one by one, every conceivable hypothesis regarding the formation of the physical world, so that by a simple process of exhaustion, we may at last arrive at the only tenable hypothesis, that, namely, which includes within it the idea of a First Personal Cause, whom all Christians call God.

We shall find on careful consideration that there are but three possible suppositions:—

1. That the world has made itself.

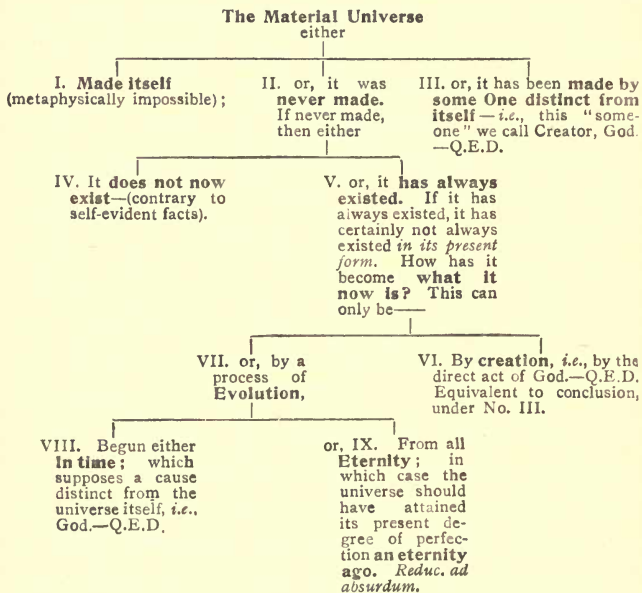
2. That the world has not been made.

3. That an external power (*i.e.* God) has made the world.

These three different hypotheses cover the whole ground, nor can any fourth be even imagined, so that every sane person must be prepared to abide by one or other of these. To one out of the three, every one must cleave who has formed any opinion on the matter whatsoever. Our task therefore is to show firstly that "the world has not made itself". We shall then proceed to the consideration of the second hypothesis, *viz.*, "the world has not been made". Here we observe that this statement may be understood in two distinct senses. It may signify either that (*a*) the world has no existence whatever, or it may mean (*b*) that it has existed from all eternity. These two alternatives must be dealt with separately. The first will need but few words, the second will be found to demand the recognition of a cause external to the world, *i.e.*, God, and so will practically be reducible to the third hypothesis.

The following scheme will perhaps best represent the line of thought and the process of reasoning adopted in the following pages. The various branches with their relations and

links will be seen at a glance, and the plan of attack on the atheist's position easily mastered:—



I. The world has made itself.

Though it is difficult to assign any precise limits to human folly, yet it can hardly be supposed that any one can really dream for a single instant that the world can have been its own creator. The mere statement of such a theory is enough to condemn it. One has only to look carefully upon it and to realise its

true meaning in order to perceive that such an hypothesis is but an impossible creation of the brain, which can have no existence except in a fancy run wild. It involves a flat contradiction of the first and most elementary of all self-evident truths ; since it practically asserts that an object may be and not be at one and the same instant of time, than which nothing is more impossible ! To create is to perform an act, to exert certain energies ; but before anything can possibly perform any action, it must evidently already be in existence : before any energies can be exerted there must already be something to set them in motion. We cannot conceive a power acting until it exist. Existence is invariably postulated as a *conditio sine qua non*, in all such cases. If anything is being done, there must necessarily be something doing which is distinct from the thing done. The effect cannot at the same time be one with its own cause. Indeed to suggest a self-created world is to suggest an effect without a cause : a cosmos produced without anything to produce it ; an object thrown into space without anything to throw it. As impossible a feat as to lift oneself up by the ears, or to kiss oneself on the mouth ! This first hypothesis may, we think, be summarily dismissed without further comment, since

no one wedded to such ideas is worth arguing with.

We are thus led to the hypothesis that

II. The world has not been made.

If we cannot bring ourselves to believe that the world made itself, and are not yet prepared to acknowledge that

III. Another made it, then

the above is the only alternative remaining. Will it stand the test of a critical examination or fall beneath the ruthless hammer of sound logic? Let us examine. The world has not been made: then either (*a*) it does not exist, or if it exists without having been made, then (*b*) it must always have been. We will begin with the first assumption.

(*a*) IV. The world does not exist.

This is obviously false. That the world does most certainly exist will be admitted readily enough by all unsophisticated persons. However much disposed we may be to doubt, the fact thrusts itself too obtrusively upon our notice to allow us to yield, even for a moment, to such a delusion. Evidences and proofs which we cannot reject stream through every sense, and command imperatively immediate and unhesitating assent. We cannot bring ourselves to deny the veracity of such wit-

nesses, nor dare we face the consequences of a system of wholesale sophism and paralysing doubt, into which it would inevitably land us. To the vast majority of men there must appear abundant and overwhelming evidence of its intense reality. The number of those who follow the teaching of Hume and Fichte, and the still more absolute idealism of Hegel and the Hegelians, is small and insignificant indeed! The curious views of such men may sometimes attract by reason of their originality and extravagance. They may excite a certain feeling of wonder, which is never far removed from admiration, and by the very ingenuity of the means with which it is attempted to support their theories, they may become fixed for a time in the minds of a few. There is, in fact, always a certain gratification in the mere display of dialectical skill and dexterity, and a man may find more real satisfaction and pleasure in seeming to defend an impossible philosophical position than in any physical feat of arms. How keen, then, must this feeling be in one who finds himself able to make any show of defending as true what all men know to be so palpably false! What fervid pleasure must he experience in appearing to prove that we are not inhabiting a real world, nor dwelling in real

houses, nor in communication with anything more substantial than ideas, impressions and feelings!!

The existence of the world is "self-evident". Its truth partakes of the nature of an axiom, and any one who refuses to admit it, thereby shows himself an incapable subject for argument. He is beyond the reach of reason, at least on all points that rest finally upon or involve that particular axiomatic truth, for he allows no starting-point where we may join issue. The ultimate truth in every process of reasoning must be accepted without proof and as self-evident, since no process can be continued *ad infinitum*. In the case of the external world, this lies in the veracity of the senses. If a man assert that "the part may sometimes be greater than the whole," no process of reasoning based upon that truth, no chain of argument of which that forms the ultimate link, can be proved to him. He is simply out of the reach of argument. An axiom does not call for proof. Even if it were proved in five thousand particular cases, the sophist might yet refuse to believe it universally true.

Hence, if a man who possesses the ordinary use of his five senses and the power of reflection declines to believe in an external world, he puts

himself in the position and must be treated as one who denies an axiom ; that is, he must be passed over and classed, as far as this question is concerned, with the inmates of our mad-houses and institutions for the insane. Indeed, we may legitimately urge that, since such a man is part of what we call "the world," it follows that if "the world does not exist," neither does the man himself exist, and so we need not argue, nor can we, with a nobody—a non-entity.

Enough has been said upon this matter. We have merely touched upon these two theories to show that they have not been forgotten. Since, however, they are not likely to impress the popular mind, nor to appeal with any success to the generality of men, we have not thought it worth our while to treat of them at greater length. *Solventur visu.* Let us then advance to the second alternative of the second hypothesis, which must be dealt with more in detail.

(b) V. If the world exists, and yet has not been created, then it must be eternal, *i.e.*, it must *always* have been.

Now we must here remind our readers that our only aim in this article is to demonstrate the necessity of a first cause. Hence, whether it be possible to conceive the world as *created* by God from all eternity or no, in no way

affects the point under discussion. Nay, more, in so far as the position we are about to assume is concerned, we might even allow that a germ or nucleus—the seed of the present world—existed from eternity, and, allowing that much for the sake of argument, could still show the absolute necessity of a first cause. Our only stipulation, surely a very reasonable one, is, that the teaching of modern science as propounded by the greatest living scientists be granted as true and trustworthy, at least in its main features.¹ In a word, it must be admitted that evolution is a fact. Let us proceed in our argument.

No one who holds the eternity of the world believes it to have always been as it now is. The existence of man, for instance, is recognised as following upon and succeeding in the chronological order the existence of the rock-substance and the fundamental strata of the earth. All agree that many steps forward have been made during past ages, whatever divergence of opinion there may be as to details. Men of all creeds are convinced that man has not been moving upon this earth more than some

¹ Of course we do not for a moment hold the evolution of the soul from matter, nor accept the doctrine of development as of universal application.

thousands of years : that he is a comparatively new comer ; that whether he existed in germ in the ape, and may be traced back to the mud-fish, and so on to a far distant protoplasm, or not, that at all events man, as he now lives, loves, and learns, cannot boast of a very ancient pedigree. Whether we allow six thousand years or six thousand centuries to have elapsed since his first appearance in a rational and intelligible form signifies nothing. What we postulate is merely that there *was* a time when man, as now constituted, did not exist, whether or not his material substance lay from the very beginning in the womb of primordial matter. What we assert of the human race holds good, of course, of plants, insects, fishes, birds, beasts and the rest. Indeed, the entire world such as we know it now, such as science reveals it to us, is wholly different to what it was thousands of years ago. The scenes that meet our eyes on every side as we travel over our little planet : the forest trees and wild luxuriant creepers, the untamed beasts that range in unmolested freedom, the birds that fill the glades and dells with harmony, the winged insects light as air that sport and sparkle among the ferns and flowers, the fish and briny monsters of the deep—indeed, all that infinite variety of life and

motion was not merely non-existent a million of years ago, but was not then even possible. The earth was not then in a condition to house such forms, neither was the state of its atmosphere fit to sustain the life of any breathing creature.

Geology is loud in its testimony to this truth, and but an imperfect knowledge is more than enough to convince all but the wilfully obstinate that "change" has been the law in past ages, and that whether we account for it by evolution or direct creation, or in any other manner, the fact remains, that the flora and fauna of the present world are not what they were in earlier times. An examination of the fossils found in the oldest rocks shows nothing but animals and plants of a very simple and low order. It is not till we get to the upper Silurian stratum that any traces of fish appear ; while, to meet with the remains of birds or quadrupeds, we are compelled to wait until the period in which the Mesozoic rocks were formed.¹ All indeed shows with striking evidence, that at different stages in the world's history, the earth was the home of very different creatures, both animal and vegetable,

¹ The same law of progress is true of the vegetable world.

and that just as there was a time when no man trod the mountain or the plain, so also there was a time yet more remote when no other mammal stirred on land or sea; and a time remoter still when as yet no bird had "cleaved the air with pinions wide". This is a doctrine all believe. Though the Catholic, the Protestant, and the Agnostic may not account for it in precisely the same way, one and all unite in proclaiming the fact. That life indeed had a distinct beginning upon the earth's surface is clearly laid down in Holy Writ, and, to those who deny Divine revelation, may be proved with equal cogency by the natural revelations of astronomy and geology. Professor Huxley writes: "On the evidence of palæontology, the evolution of many existing forms of animal life from their predecessors is no longer an hypothesis, but an historical fact; it is only the nature of the physiological factors to which that evolution is due which is still open to discussion".

If, then, we proceed a step further and inquire how the change came about; how it was that first one thing, then another; first the perfect plant, and then the perfect beast was to be found on earth, nine out of ten will exclaim without hesitation—Evolution! evolution!!

Indeed, but two ways are possible, (1) VI. By direct creation, or (2) VII. By evolution. The first already supposes a Creator and thus grants what is under discussion, so our attention may be restricted to the latter. Let us for the nonce, then, accept the theory that it was by a more or less protracted process of evolution. Let us suppose that much as the acorn grows into the broad out-stretching oak, with its roots and trunk, and leaves and fruit; or the egg into the feathered bird, with its nerves, muscles, and its wonderfully complicated organs of nutrition, generation and digestion; so has the universe grown and developed into its present form, where unity is so sweetly blended with variety.

Here it may be well to state that we do not deny every form of evolution: we in no way deem such a process either unreasonable, impious,¹ or even improbable—up to a certain point, indeed, it cannot be denied. What we do most vigorously assert is, that any such process is utterly impossible unless the existence of an Eternal and Reasonable Being, *i.e.*, of God,

¹ There is nothing in the *principle* of natural evolution which is not in strict accordance with the teaching of St. Thomas and of the Fathers of the Church, although the *modern misapplication* of the principle has led to grave philosophical errors. See Father T. Harper's *Metaphysics of the Schools*, vol. ii.

be first conceded. To lay before our readers the proof of such a statement, we must proceed to the consideration of each of the only two possible suppositions: Either evolution began in time, or it is eternal. We will commence with the first.

VIII. Persons adopting this hypothesis would probably argue that the world, in some simple primordial form or another, existed from eternity, but that not till a certain date did it commence to evolve.¹ They would declare that evolution had a beginning, though the actual date at which it began may be left undecided. Now a most serious difficulty to such a view at once presents itself. It is to account in any satisfactory or reasonable manner for the first step. *C'est le premier pas qui coûte.* To make the matter clearer, let us consider what evolution postulates.

The process may be described in various ways. Some will seek to explain it according to one system, some according to another. We must fix, therefore, upon some condition postulated by all systems, and this we shall find to be

¹ Some seem to realise the impossibility of any matter, however simple, beginning of itself to exist, but not the impossibility of existing matter beginning of itself to develop, though one is in reality just as impossible as the other, and for precisely the same reasons.

MOTION. However much distinguished scientists may differ among themselves in detail, the one condition in the process essential to all their systems is motion. Without motion an egg will never become a bird; nor will a chrysalis ever transform itself into a butterfly. So, too, the original protoplasm could never by any conceivable method have metamorphosed itself into the present world without motion.

We must allow motion, whatever else we may reject; without it no hypothesis is even imaginable. Take the most simple and advanced that man's fertile brain has ever suggested. Suppose every being to be made up of identically the same ultimate atoms,¹ and deny, if you will, every intrinsic and essential distinction between the ultimate elements of which things are composed. Suppose that the stones forming London Bridge, and the cart-load of vegetables drawn over it, and the horse laboriously toiling between the shafts, and the man cracking his whip, and the sluggish waters slowly wending their way beneath to the endless sea, to be merely the self-same matter indefinitely differentiated;

¹ Mr. Spencer affirms that there is "but one ultimate form of matter, out of which the successively more complicated complex forms of matter are built up".—*Principles of Psychology*, vol. i., p. 155.

variously ordered, adjusted and transformed : and that each of these objects is made up of the same substance, only in unlike combinations. Further suppose that thought and imagination and memory and will, no less than the mind¹ itself that thinks and the objects thought of, are all substantially the same, and are resolvable into each other, just as heat and light and electricity and magnetism are said to be—since they are (?) identically the same substance, in varying degrees of motion. Surely nothing could be more advanced than that ! Here we look upon the whole universe in its infinite variety, and allow (for argument sake) that the variety is not to be accounted for by the presence of different elements, but is due merely to the same element infinitely differentiated,

¹“Der Mensch ist nach seinem körperlichen, wie nach seinem geistigen Wesen ein rein chemisches Produkt der Materie ; sein Wesen ist die Summe der Zusammenwirkung der Atome seines Leibes mit der Aussenwelt—ein reines Erzeugniss des körperlichen Stoffwechsels, der sich planlos von selbst in Anregung setzt und stetig bis zur Auflösung bewegt ” (see Büchner’s *Kraft und Stoff*, p. 286, and *Die Unsterblichkeitsidee im Glauben*, p. 132, by Schneider). So Prof. Maudsley teaches that “the thinking substance, that which thinks, reasons, wills, . . . is the brain, not any supposititious metaphysical entity, of the existence of which the physiologist has no evidence whatever ” (*The Physiology of Mind*). Others, again, speak of the soul or mind of man being secreted by the brain, “as electricity is by the torpedo fish ! ”

and that every distinction that exists, whether in colour, form, or function, is really owing in no way to any corresponding difference in the nature of the ultimate parts of which the objects are composed, but only to the difference that exists in the relations which the ultimate parts bear to one another. But, even granted that all that differs, differs only because of the manner in which the atoms have been built up in its construction—and how is it possible to concede more?—*motion* must still be admitted. For even if all things were made out of an assemblage of the same atoms, they could not arrange themselves into different systems without moving from their original position. Before combining to form any new thing, they must become differently related, which always implies motion as its essential condition.

Now comes the question: How did this motion arise? Whence came the first impulse? Who set the ball rolling? If motion began, what caused it? Consider the hypothesis. From all eternity primordial matter existed, but it rested æon after æon silent, dead, inactive. No atom stirred! No particle quivered!! Conceive this mass of atoms lying thus in the stillness of death throughout the immeasurable lengths of eternity; and then without any change

in their environment or mutation of condition—without, in fact, the slightest reason or cause, conceive them beginning suddenly to stir, and to arouse themselves from a lower to a higher state. When a leaf trembles on the trees, it is because the wind is stirring it; when a pendulum swings to and fro, it is because a spring is acting on it; when a fruit falls to earth, it is because the force of gravity drags it down. Whatever moves, moves in virtue of something else that is in communication with it. Nothing can originate motion in itself. It is a metaphysical impossibility. Yet we are obliged to believe this impossibility, to gulp down this absurdity, if we are to accept the hypothesis. Once grant the first step, and of course all becomes comparatively clear and easy; once admit that a single atom trembled, and the rest follows readily enough. But here is the rub! Here the whole difficulty.

Whatever commences must have a cause. The very idea of beginning includes as much. It is a passage from non-being to being. Non-motion¹ can no more produce motion, than

¹ It may be advisable, perhaps, to warn our readers against accepting the term "motion" in too limited a sense. St. Thomas lays down: "*Quamvis motus proprie acceptus sit corporum, tamen nomen motus etiam ad spiritualia derivatur*".

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non-existence can produce existence. It must have some cause external to itself; that is to say, there must be some force besides the primordial matter—a force which acted on it and moulded, fashioned, and formed it into the forms it has since assumed, and that Force, that Being, is what Christians call the “Creator of Heaven and Earth,” *i.e.*, God.

But further, not only are we to conceive the eternal protoplasm beginning to move of itself, but we must regard it as beginning to move at one particular and definite instant of time. What was then to determine its motion then, rather than sooner or later?

If the primordial matter existed from all eternity, there was no period, however far back we may go, in which motion might not have begun. It might have begun but yesterday, or an infinite number of years ago. Yet it undoubtedly began at a certain fixed moment of time. Now the chances of its beginning when it did was as one to infinitude. For if nothing caused the motion there was no reason for its beginning at one moment more than at another.

It will serve to allay any difficulty arising from the consideration of the action of God as Creator (with whom there is no *local* motion) if we bear in mind that, according to the scholastics, *omnis operatio “motus” dicitur*,

What then determined it to commence when it did, rather than at any of the other possible moments? Or again, to state the difficulty in another way, since it must in itself be equally indifferent to rest or motion, how are we to account for its change from rest to motion? To suppose the transition from one state into another without a cause is inconceivable.

But hold! it may be urged, perhaps, that just as we have conceded, for pure argument sake, that the primordial matter is eternal, so ought we to concede that motion is likewise eternal. "Willingly do we admit," our opponents may say, "that motion could not have originated without a cause; but supposing we say it never *did* begin, but that it always was. Supposing we contend that evolution is not a fact of recent date, but that throughout eternity it has been ever constantly working. What then?"

Our reply is—choose which horn of the dilemma you please. The choice of the second is no better than the first, and if you elude one you will be impaled on the other, as we shall now proceed to show.

IX. We cannot imagine to ourselves an absolutely and infinitely perfect world. It is a thing we can form no adequate notion of whatever. In order to do so, indeed, we should

have to possess a mind infinitely endowed, and a capacity which is limitless. But that does not in any way prevent our being able to recognise various grades of perfection, which, though all infinitely short of *absolute* perfection, yet differ among themselves. We suppose, for instance, that it will readily be granted that we may imagine a world somewhat more perfect than the one we inhabit. Indeed, if we have any faith in progress, we must allow that the world not only is capable of improvement, but that as centuries roll on, it will in reality more and more approximate to absolute perfection. To all who entertain such a belief (and we submit that all who make the world the only existing being do so), the assertion that "the world which now exists might be imagined more perfect than it is at present" must be a mere truism. Yet this is all we demand to show that evolution from eternity is an impossibility.

We will endeavour to state the matter as clearly as possible : We cast our minds forward in the distant future. We look upon the earth as we may imagine it to appear a hundred thousand years hence. It has greatly improved ; it has become in every respect better ; it has got rid of certain anomalies and blemishes ; in a word, it

has attained a certain higher state than it previously possessed. We will, for want of a better expression, content ourselves by saying that it has reached a certain limited perfection. Not an absolute perfection, but a *certain relative* perfection. This perfection is of course a finite perfection, and the word is only to be understood in the sense in which it is popularly used, as "I am in perfect health," or, "He is a perfect shot". Here then we have before our mind a world which is perfect with a finite perfection. We will call it x . Let x then represent the state of the world as it will be, one hundred thousand years hence.

Now, evolution has been progressing (*secundum hypothesim*) during an entire eternity, and nevertheless the world has not yet attained even the state of finite perfection expressed by x . Or, to put it in another way: Eternity has not been long enough to produce a given limited perfection; which is to assert that a longer period than eternity, which is an absurdity, is needed to bring about a finite result; which is, of course, a true "*reductio ad absurdum*".

Let us shift our position again, and view the same subject in a somewhat different light.

We all agree that the world attained its

present state gradually. That little by little it rose to a higher and a higher state of being. Well, let us follow back, *reverso pede*, the multitudinous steps through which the world has advanced to its present state. Let us suppose that progress was very slow, and that one hundred thousand years had to pass before one step in advance was made. Even on such an hypothesis, the number of steps could never extend into eternity. If the degree of perfection that the world now enjoys be finite, it must be measured by a finite number of steps in its progress. The present universe being only of a limited perfection, it necessarily is measurable. If, each time we remove in thought one hundred thousand years from the life of the world, we find it in a less and less perfect state, it necessarily follows that, by repeating the process often enough, we shall come to a time when it had not as yet begun to move forward at all ; in a word, to a moment when the first step forward had not as yet been taken. From which it becomes at once manifest that evolution or motion towards perfection, could not by any possibility be *ab æterno*.

Let us state the matter in another way. The world at the present moment certainly falls far short of absolute perfection. Even theists teach

that God might have made a better world than that which exists, and while believing in its relative perfection—that is, its accurate correspondence to the end and purpose God had in view in forming it—they no less openly assert that it is infinitely removed from infinite perfection. Now to reach any determined and limited stage of perfection by a process of gradual amelioration, nothing more than a finite and limited time can be necessary. It is absurd to demand an unlimited duration for the purpose of bringing about a limited result, or to ask for an eternity that one may account for what can be done in time. If the degree of perfection be limited, a constant, however gradual, diminution will eventually reduce its perfection to zero, and by retracing the process it has gone through backwards, one must at last come up with its starting-point. This is undeniable. Let us now suppose the period from the present to the above-mentioned starting-point to be any number of æons or cycles of years. This unknown quantity y , however immense and incalculable in human figures, is a limited number. We then have y to represent the length of the period in which, by a process of progressive movement, the world advanced to its present state. But if this movement has been going

on from all eternity, it would not have been necessary to wait till the year 1905, to witness its present state of perfection. It should have arrived at that *limited* state an eternity ago, or an eternity minus y , which we presume equals eternity, since y can form no fraction of it.

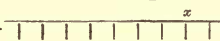
We see here then into what an inextricable difficulty the theory of eternal evolution lands us. It is seen, if accurately and attentively considered, to be a contradiction in terms. Whatever we may think of a perpetual progress from a certain point onwards, it is simply ludicrous to speak of a progress dating from a past eternity. The only reason that the first is conceivable is because we always look upon the eternal future as never actually realised, as a continuous march forward, but as never actually completed, whereas the idea of a past eternal succession is the idea of an eternity already completed, which is a self-contradiction.¹

Thus (1) it is admitted on all sides that the world is still in an imperfect state.

(2) It is also admitted that it attained this present imperfect state gradually, by a process of evolution.

¹ When we speak of God, and say He is eternal, we do not mean that His happiness, power, love, etc., *will* extend into the future, but that He holds in one simple embrace both past and future in one unchanging *NOW*.

(3) It must therefore follow that the world has been evolving only during a limited time.

We will represent the primordial state of the world by one extremity of a straight line A, and its present state by the opposite extremity B. The entire distance from one extremity to the other will thus represent the amount of excellence attained. If it be infinite, the line will be of infinite length; if finite, the line will be of finite length. But it is agreed that the degree of excellence is finite; therefore the line is finite. Mark off a portion x of this finite line A B (A  B) to represent the progress made during any given time, say 100,000 years.

Now if the distance between the two extreme points of the line were infinite, one might multiply this distance x any number of times and the sum would never equal the whole line; but since it is a line of finite length, x represents a real fraction of the line, and if repeated sufficiently often would equal the whole of it. Thus 100,000 years would form a measure of the entire period during which the world was advancing towards its present state. But 100,000 years is no measure of eternity; therefore the entire period during which the world was advancing towards its present state cannot be equal to eternity, but only to a certain defi-

nite duration. Hence it is clear that evolution has not been always at work, but that it has begun in time ; but the necessity of a beginning includes the necessity of an independent Cause, *i.e.*, God, as has been shown.

Yet another example. The present state of the world is said to be the outcome of a less perfect state. As the butterfly is the product of the chrysalis, and the chrysalis is the product of the larva, and as the larva is the product of the egg, and so on, so the present state of the world is the product of a less developed state ; that less developed state of a state still less developed, and so away back through the ages that have flown. Each state depends, or, as it were, hangs from a pre-existing state, forming a long concatenation of dependences. Thus we have a sort of chain composed of a vast number of links. Each link represents a certain increase in perfection together with the length of the period during which that increase was being won. Now, if the perfection at present attained were infinite, one might go back from link to link and never reach the end ; but since the perfection attained is essentially limited, then by going back from link to link we must at last come upon the first link in the series. For supposing the chain to represent the per-

fection already attained, and supposing that perfection to be but finite, the length of the chain *must* also be finite, and to travel back to its first-formed link must be but a matter of time.

Yet another consideration and illustration. Suppose we represent the process of development that the earth is said to have gone through, by a series of impulses carried on throughout a past eternity. To give the idea clearness we will represent it to our minds by the figure of a long row of billiard-balls, extending back from the present into an infinite past. Being an infinite row, there can of course be no ball first in the row, since to speak of the first is to speak of the beginning of the row, while *ex hypothesi* it possessed no beginning, being infinite. In one word, being infinite in backward extent, its end can never be reached. We may travel in thought from one ball to the other, back into the mist of past ages, but *never* by any possibility could we ever succeed in reaching the extremity of the row. Why? Because it is infinite. This must be clear. For if after any possible series of leaps the end could be attained, it would not then be infinite.

But here is another consequence which is not sufficiently dwelt upon. If no series of

leaps, starting from the present, can ever land us at the most distant extremity of the infinite row, so *in precisely the same way, and for exactly the same reason*, no possible series of leaps, starting from the most distant extremity of the infinite line, can ever reach us here in the present. No impulse coming from the infinite past can ever, in the nature of things, reach the present. If no possible series of jumps beginning at A can ever take us to B, so neither will any series of jumps beginning at B take us to A. The distance from B to A is not one whit shorter than the distance from A to B; however far A is removed from B, B is removed from A by the same distance. Since, then, it is wholly and utterly impossible, *from the very terms of the proposition*, ever to get to B from A by a series of movements, so must it be just as wholly and utterly impossible to get to A from B. Therefore, to apply the illustration: any series of impulses towards development or progress, if coming from an infinite past, would never reach the present. If we can never stretch up to them, so neither can they ever stretch down to us. It thus appears wholly absurd to speak of an infinite process of development, an infinite series of impulses forward, or to speculate on the effects of an infinite past.

The same line of argument may be applied in refutation of the theory of alternate stages of progress and relapse, *i.e.*, of a gradual development, up to a certain point, a reversion to the original state, a new development succeeded by a new reversion, and so back into eternity.

This strange theory, which has found but few advocates, hardly calls for special treatment, as it may readily be answered by an application of the arguments already supplied. Indeed, it has still further difficulties to satisfy, *viz.*, in accounting for the reversion. Thus, if this self-existing force, moving in the direction of progress, be represented by an arrow flying, we shall find that we have not merely to account for (*a*) the presence of the arrow itself, and for (*b*) its direction, and (*c*) momentum, velocity, etc., but that, this being done, we have further to account for the arrest of its flight at regular succeeding intervals, and to explain how it is set in motion again each time that its strength has been spent. Let us now sum up.

It has been shown so far, that—

1. The world did not make itself.
2. That the process of evolution so much insisted on by naturalists and scientists, (*a*) if supposed eternal, leads to absurdity, and (*b*) if supposed temporal, postulates a cause other than

itself. Thus, the foregoing considerations throw us back upon the old Christian view of creation as the only one left, and therefore the only one possible.

It may possibly be objected : " But one must in every hypothesis arrive at last at a being without a cause, and that even the most orthodox believe in a God uncaused ; why not then suppose the first motion of protoplasm towards perfection to be uncaused ? Make that the ultimate cause, itself uncaused, instead of God."

Putting aside all other reasons, we merely remind our readers that "uncaused" is but another word for "eternal". To ask us to apply the terms "temporal" and "uncaused" to the same thing is really to ask us to declare a thing to be at once eternal and not eternal ; caused and not caused.

We are at liberty to consider evolution either as eternal or as not eternal, but not both at the same time. There is no *via media*, and we must choose one or the other. But both are equally repugnant to reason, unless an independent Cause be admitted.

Suppose we choose an eternal evolution, then we are confronted with the absurdity that an eternal progress towards perfection has been insufficient to bestow upon the world even its present finite excellence ; or such, for example,

as we may suppose it to possess, after another half million of years have passed away.

But if we prefer to adopt the theory of an evolution begun in time, there is no escape from the necessity of a cause : which cause can easily be shown to be God.

It is then manifest, from the foregoing considerations, that it is altogether impossible to dispense with a cause external to the world and independent of it. Any position we may assume that does not imply a primary Mover is untenable, any theory we may advocate which does not postulate the existence of an eternal and infinite Being, unreasonable and absurd. The more earnestly we inquire into the question of the world's past history, and the deeper our researches into the various theories that have been propounded by different schools of thought, the more do we find ourselves driven back to the old conclusion, as consoling as it is reasonable, that "the Lord He is God, He made us and not we ourselves".

In these days, when so many attempts are being made to sweep away every trace of the supernatural, and to plunge the world beneath the destructive waters of a moral deluge more universal and more disastrous in its consequences than that which once drowned the

material world, it is surely of great importance that we should all do what little we can to prevent the truth being wrested from us. We should endeavour to feel as well as to know of the rock beneath our feet.

THEISM TREATED AS A SCIENTIFIC HYPOTHESIS.

“ It is the first duty of an hypothesis to be intelligible.”

—PROF. HUXLEY.

“ Lo que no explique la ciencia de Dios, no lo explicará de seguro la vana ciencia de los hombres. Torrentes de claridad surgen de este abismo insondable que, derramándose por todos los espacios y reflejándose en todos los horizontes, de tal manera penetran el mundo visible y el invisible, lo material y lo espiritual, el órden de los hechos y el de las ideas, que no hay cuestion, problema ó dificultad que no tenga su solucion á la luz de la ciencia divina.”—See *Harmonía entre la Ciencia y la Fe* por P. M. Mir, p. 16.

WHEN atheism is found among the poor and illiterate, its rise may generally be traced to simple carelessness, neglect and indifference, engendered by the sad condition of their lives, so occupied in toil and fatigue as to leave little opportunity for the practices of religion. Such unfortunate creatures are often the unresisting victims of circumstances, and are in no sense prepared to give an intelligible account of their deplorable mental condition.

With the educated the case is wholly different. An educated man is seldom content to express

even a passing opinion, unless he can show some plausible ground in support of it ; far less will he openly profess and maintain momentous religious or irreligious convictions, unless he can bolster them up with at least some show of argument. Passion and pride may indeed lure him away from the straight path of religious truth, but the intellect, which always demands a reason for every human act, will press him so closely and unsparingly that in sheer self-defence he will be forced either to find, or else to invent some apology of an argument for the faith that is in him. Even an infidel deems himself a reasonable being. He will consequently know no rest, until he can persuade himself by quibble or sophism, that his conduct is in conformity with the dictates of sound reason.

If we question the typical highly-cultured Agnostic of the twentieth century, we shall find that he will almost invariably seek to justify his absence of faith on one of two grounds. Either he will contend that the only object with which the human mind is capable of dealing is the intelligible,¹ and that it must

¹ Positivism deals only with "what is accessible to experience". It neither affirms nor denies supernatural truths, but, like Agnosticism, disposes of all such questions with the trite remark: "The invisible is not in my domain".

at once reject the incomprehensible and the mysterious—and all religion involves mystery ; or else, if he do not quarrel with the incomprehensible on its own account, he will quarrel with the arguments on which it is based, and pronounce them insufficient and unsound. In fact he will candidly confess that they do not satisfy him, and are such as cannot approve themselves to any intelligent being.

The first plea we have already considered in a former chapter. In the present inquiry we will occupy ourselves exclusively with the second.

We are now contemplating the case of an educated man, who professes himself ready and willing to accept any doctrine whatsoever, provided that it rests upon sufficient evidence, but who strongly denies that there is sufficient evidence for belief in a God or in an invisible world. In fact, when pressed, he will state and explain his position in some such words as the following : “ Of course I admit the incomprehensible when it is supported by solid proof. In fact I am perfectly well aware that mysteries without number do really exist in the physical world around me, and these I unhesitatingly accept without demur ; but be kind enough to observe, I accept them only because they are

supported by the most unimpeachable and irresistible evidence—and my contention is that your dogmas and articles of faith are wholly deficient in this respect. The difference may be best illustrated by an example. I take a seed. I place it in the ground. It comes up a flower. Now I acknowledge that this is a mystery. I do not profess to offer an exhaustive explanation of why and how this simple, shapeless particle of unconscious matter can, in its dark and gloomy workshop underground, weave the various elements of earth, air and water into a damask rose or a blushing pimpernel. The whole process, besides being most curious and interesting, is also most mysterious. I grant all that, and yet I most readily admit the fact, in spite of the mystery in which it is shrouded. But why? Well, for a reason that is utterly wanting when I come to deal with the dogmas of faith. I believe because I can watch the whole process from beginning to end; because I have ocular demonstration of its truth. In fact I cannot help believing it, since I can witness each stage of the development with my own eyes, and am at perfect liberty, if dissatisfied with the first or second experiment, to reassure myself, by repeating the process as frequently as ever I please. With the dogmas

of faith it is quite otherwise. When I am asked to accept any tenet of Christianity, say for example the efficacy of baptism, no such evidence is afforded me. You do not hesitate to claim my prompt acceptance of this mystery—a mystery immeasurably more marvellous than any to be met with in the whole realm of science—nevertheless you accompany your astounding demand with no proofs, such as scientists offer when proposing any of their doctrines. For instance, you gravely assure me that a little water, accompanied by a few simple words, effaces sin in the soul : you tell me that the water and the words work instantly, and on an immaterial substance (which they certainly cannot touch or come in contact with), changes beyond the power of human language to describe ; changes, mark you, compared to which the transformation of an acorn into an oak, or a chrysalis into a butterfly, is but trifling and insignificant ! It is surely not unreasonable to ask for sound and unequivocal proofs. You call me ‘incredulous and prejudiced,’ but in truth I am neither. When you inform me of the marvels of the Christian creed, I do not straight away deny your statements ; I merely hold my judgment in suspense till I hear your arguments, precisely as I would in any matter

of science. All I request is that you should substantiate what you so boldly affirm, and make good your assertions. Would you have me believe in the changes wrought on the soul in baptism? Very good. Then let me, as in the case of the developing seed, gaze upon the result and verify the truth with my eyes. I am quite open to receive your assurances, but before actually doing so you must offer me evidence in support of your doctrine equivalent to that which I offer you in support of mine. Give me that and I promise—mystery or no mystery—to embrace your teaching readily and gladly. You cannot surely expect me to make an act of faith on any other grounds; and least of all upon the mere *ipse dixit* of any mere man."

Such is the general line of defence adopted by all classes of Agnostics and Positivists. They profess to follow scientific methods, and are unwilling to apply to theology or religion any line of argument, save such as they have been accustomed to employ in physical research.

We might, of course, rejoin that this is most unreasonable: that the world of spirit and the world of matter are wholly distinct; and that methods suitable to material things will be quite unsuitable to spiritual things. A telescope will reveal the secrets of the heavens, but it

will not help us to read the secrets of the heart ; a microscope will lay bare the innermost texture of plants and vegetables, but it will throw no light on the mysteries of mental physiology ; because the first is material and the second spiritual. We might thus close the discussion at this point with a polite request that our opponents would be sensible enough to cease striving either to see with their ears, or to hear with their eyes. But let us rather push our investigations a step further.

It is not true that all facts, even of science are proved by ocular demonstration, or by an appeal to the senses. Many doctrines most firmly believed and most readily accepted by scientists are mere inductions. And if the process of induction is sufficient and satisfactory in the case of scientific truth, it must be equally sufficient and satisfactory (where applicable) in the case of religious truth. Let us then attempt to establish, according to strictly scientific methods, the general truth of a supernatural state, and the existence of God and of a future life. That we may follow the methods of science the more accurately, we will begin by selecting some well-known truth of physics, and placing it before us, examine how it has come to be acknowledged, and on what basis precisely it

rests. We will then proceed to apply the *self-same* process of reasoning to the supernatural. That is to say, we will speak to scientific men, not in the ordinary language of theology, but in their own language, and see if we can make ourselves more intelligible.

If we put before us all that science teaches, and accepts without hesitation, and ask, "On what does the certainty of these doctrines rest?" we shall find that in many instances it rests on arguments which may just as fairly and even far more cogently be applied in vindication of fundamental religious truths.

Take as a familiar instance the law of Gravitation.—Does the whole educated world accept the law? Undoubtedly. Do scientific men firmly believe in it, and acknowledge it? Do they take it for granted in their books and treatises and lectures? Of course they do, If then we can prove the existence of the supernatural in a manner similar to that in which the law of Gravitation has been proved, they ought, if consistent, to believe it just as readily and as firmly. The point is worth examining. Firstly we must observe, that this epoch-making law was not always known even to the learned. It is, comparatively speaking, a modern discovery ; for, though Anaxagoras is said to have

suspected it five hundred years before Christ, the principle had not been explained, nor thrown into anything like a scientific form, till Sir Isaac Newton shed the light of his genius upon it, in the seventeenth century. And how did he arrive at so momentous a truth?

He, like thousands before him, was a devoted and vigilant student of nature. He, as others, was struck by the perpetual movements observable throughout creation. He watched the ripe fruit detach itself from its parent stem and fall to the ground. He observed the arrow, shot into the air, return to earth. He found that the waters of rivers, brooks and torrents were ever hastening to a lower and lower level, till at last they emptied themselves into the sea. These phenomena set him thinking. How, he asked himself, are we to account for these innumerable movements in earth and sea and sky? He cast about for some simple law lying at the back of all these particular facts, by which they might be explained. Various solutions probably suggested themselves to his mind. At last after much thought and observation he hit upon the law now known as "the Law of Gravity," and laid down the principles that have since become so familiar to every student of Physics, *viz.* :—

1. All masses of matter attract one another.
2. The force of attraction is *directly* proportional to the quantity of matter contained in each mass, and
3. *Inversely* proportional to the squares of their distances from each other.

In setting down these three principles he defined and proclaimed, like some hoary seer of antiquity, a great but hitherto unknown truth. We may indeed call it "a new dogma" or "article" of scientific faith. And men embraced the new doctrine. They believed Newton's word, and added another dogma to their scientific creed, and they believe it still. And the learned and the wise (whether observers or experimentalists) believe it, if possible, even more strongly and firmly than the simple and the inexperienced. How are we to account for the hold that this truth has gained on the public mind? Why was this doctrine, thus suddenly sprung upon the world, so enthusiastically welcomed? What *motiva credibilitatis* had Sir I. Newton to offer in support of this invisible and mysterious agency? Had he seen it? Had he thrown it into the retort and forced it to declare itself? Had he been able to submit it to any chemical test or analysis? No! he had nothing more to show for

its truth than that which reason and sound sense offer in support of the Spiritual and the Supernatural—yet the mysterious law of gravity is admitted by the Atheist and Agnostic, the Sceptic and Positivist, while the supernatural is denied.

We may profitably examine this point, and learn a lesson of applied logic. In determining whether Newton's theory should be accepted or not, men were content to ask themselves, will it satisfactorily explain what we observe going on in nature? Is it, in a word, a working Hypothesis? They began by laying down the following canon: "The truth or falsity of this principle is at stake. Now, if this principle is true, it must explain and account for all the general phenomena of inorganic motion." But they did not stop here. They went indeed a good deal further, and argued conversely: "If this new principle of Gravitation accounts for and explains all the phenomena of inorganic motion, it must be true".

They set to work to apply the three great laws of Gravity to the various cases coming before them, and were satisfied with the results. Time rolled on. The observations of one man were supplemented by the observations of hundreds of thousands. At home and abroad,

on land and sea, year by year, and century by century, these laws promulgated by Newton were found really capable of explaining the course of the stars, the velocity of falling bodies, the curve of projectiles, the arc described by an horizontal water-jet, the motion of the tides, the descent of glaciers, and in a word all phenomena of inanimate motion. The new law supplied a connected and consistent interpretation of myriads of known facts. That was enough. The discoverer became a hero, and was regarded as a genius, and the whole scientific world cried out without one discordant note, a long and enthusiastic "Credo! Credo!" I believe! I accept!

That such effects might possibly be produced by other causes mattered not at all. Whether they might or not, it was quite clear that they are well explained by this. That was enough. It was all that men demanded. The Pope of the scientific world, Sir I. Newton, had fulminated his decree and promulgated a new definition, *urbi et orbi*, and every head bowed in humble obedience to the decision.

Far be it from us to quarrel with such scientific faith—for it is most reasonable. The precise point of our complaint is, that men who believe the laws Gravity *on such grounds* should deem

it unreasonable of us to believe, *on exactly parallel and similar grounds*, the teaching of Faith regarding the Supreme Being, a world beyond the grave, and the final rendering to each man according to his works.

The truth of the theory of attraction rests (1) on its being required in order to account for certain well-established facts, and (2) on its power to explain such facts in a rational and satisfactory way. Thus: An apple falls to the ground. This is the observed fact. How shall we interpret the phenomenon? Why should an apple and the earth seek to meet? By virtue of what force, or law? We start ignorant of the cause, but we are not content to leave the question unsolved. We therefore set to work, proposing first one cause and then another—as a locksmith might try the wards of some complicated lock with various keys—until at last we can hit upon some theory that will unlock the mystery, and solve not merely the case of the apple, but every known instance of moving bodies. This found, we are content to accept it. Its very fitness to interpret the innumerable observations and experiments of enquirers is its best claim upon our acceptance. The ready answer it affords to each successive difficulty is the best credential it can show, and

if no rival theory exist displaying similar credentials, it will be accepted and held as certain. The practice of admitting and acting upon theories on such grounds, and on such grounds *alone*, is common to all scientists when dealing with the material or physical world. It is only when such a practice necessitates belief in a Supreme Law Giver and in a future life, that they refuse to apply their own well recognised principle and begin to act inconsistently.

It is the famous anti-Christian Haeckel himself who lays down the following significant rule for the guidance of his fellow-scientists :—

“According to the general principle observed in all natural sciences, we must accept and retain for the explanation of phenomena any theory which, though it has only a feeble basis, is compatible with the actual facts—until it is replaced by a better.”

The principle here laid down as an axiom by such a violent opponent of all religion as Haeckel, we may surely employ in support of theism, without exciting suspicion that we are applying to an interested source for our weapons of defence. Yet the application of this very principle, so satisfactorily employed in many departments of physical research, is all that is needed to convince an unprejudiced and im-

partial inquirer of the great fundamental truths of religion. In science, the theory of gravitation is accepted because it explains the motions of the physical universe ; in religion, the theory (for so we must speak of it here) of God and His providence is accepted because it explains the motions of the psychical universe, that is to say, all the moral and religious characteristics of man. The laws of attraction are no longer regarded as matters of doubt, for the simple reason that they interpret natural phenomena ; so too the main features of the Christian creed should no longer be regarded as matters of doubt, for the equally simple and equally cogent reason that they likewise interpret, account for and unravel the otherwise hopelessly entangled web of human life.

Given an omnipotent, an omniscient, and an infinitely perfect God ; together with the doctrine of sin ; its atonement ; and a future life, with its rewards and punishments ; and we have an intelligible and satisfying account of what, upon any other hypothesis, must ever remain an insoluble mystery. In a word, the theory of God's existence does for the spiritual world exactly what the theory of gravitation does for the physical world, *i.e.*, it affords a ready solution to a riddle otherwise impossible to

read. Hence, as reasonable beings, we are constrained to acknowledge the postulates of Faith in the one case, just precisely as we are constrained to acknowledge the postulates of science in the other.

Christianity is true. A future life is a reality, not a dream. Heaven and hell and immortality are stern unalterable facts. Why? For this reason (even were there no other), because they must be postulated as the only adequate means of accounting for the actual and observable phenomena of human life. They are as indispensable for the due explanation of the mysteries in the spiritual and psychological orders, as the laws of gravity are indispensable for the due explanation of the mysteries in the physical and material order.

Let us elucidate our meaning and enforce the truth of our contention by a few illustrations. Thus, *e.g.* :—

We must postulate the existence of God ; for how else can we explain the fact that during all past ages every tribe and people have believed in a God? How account for the historical truth that no nation, however rude and barbarous, or however civilised and cultured, has ever yet been found without some idea of a Supreme Being? Men's material senses may

indeed lead them into erroneous conclusions, as when it led them to think that the sun moves round the earth ; but where it is not the external senses, but the intimate voice of man's innermost nature that speaks, its verdict pronounced by the entire race never is, and never can be false.

When all nations confess a God, they confess what is not an object of sense at all, but an object of inward consciousness ; there is therefore no opportunity for sense to deceive them. They do but proclaim the silent convictions of their hearts and enunciate their inward perception of the essential relation of dependence in which they stand as creatures towards an infinite Creator. Admit the existence of God and we have a simple, clear account of the phenomenon ; the difficulty vanishes ; but deny His existence and in vain shall we seek any satisfactory solution to this startling yet undeniable fact.

So again we need the religious postulate to account for the facts of the moral faculty ; the intimate sense of right and wrong, vice and virtue. As Newton asked, how comes the apple to be drawn towards the earth ? so we ask, how comes conscience to be drawn towards truth and justice and purity, etc ? The latter phenomenon demands a cause quite as peremptorily

as the former. Whence comes that marvellous witness to virtue and honesty, which is as unmistakable as the faculty of seeing or hearing?¹ Why do we feel instinctively and irresistibly that (apart from all considerations of interest, pleasure or utility) certain acts and lines of conduct are good, and certain others intrinsically bad? So unmistakably bad indeed that nothing can persuade us that they are good. So clearly contrary to justice that all the force of desire, all the violence and impetuosity of passion, and all the greed of gain or lust of pleasure are powerless to disguise from us their true character, or to cover them with any veil thick enough to hide their moral deformity from our eyes. Even when we are overruled by the vehemence of temptation and basely succumb to it, it is not the intellect but the will that yields. While the hand is yet red with innocent blood, and the passionate impulse still thirsts for vengeance, conscience does not cease to condemn and denounce the crime. Who will account for such

¹ "There is as much ground, or as little, for trusting to the report of the moral faculty, as for believing our perceptions in regard to an external world, or our intellect respecting the relations of number and dimension. Whatever be the authority of Reason respecting the true, the same is the authority of Conscience for the right and good."—*Types of Ethical Theory*, Part II., Book I., ch. iv., p. 114, by J. Martineau.

a universally observed fact¹ except on the theory of an Omnipotent Ruler who has thus impressed His will on the hearts of His creatures? It is the simplest and most satisfactory theory, and the theory longest in possession, so that even on Haeckel's showing, it should be preferred to the preposterous accounts which have been proposed as a substitute in modern times.

Consider further that conscience not merely distinguishes right from wrong, and points out to all the nobler and the better way, but that it stings the disobedient with the anguish of remorse.² Now, what gives birth to that secret

¹ "Die Geschichte bezeugt, dass bei allen Völkern das Gewissen als höhere Macht des sittlichen Urtheilens und Richtens bei sämtlichen Beziehungen des bürgerlichen und des religiösen Lebens vorhanden war und anerkannt wurde. In den Religions-Sagen der alten orientalischen Völker, sowie in deren Buss- und Reinigungs-Wesen findet die Idee des Gewissens besondern Ausdruck: bei den Griechen und Römern wurde sie theils in mythologisches Kleid gehüllt, theils von Rednern und Dichtern ausgesprochen, etc., etc."—*Vide* "Gewissen," in *Kirchenlexikon*, p. 566, ed. 1888.

² "Le remords, c'est l'accusateur, le témoin, le juge que Dieu a mis dans le cœur du méchant pour mieux établir que son crime a été vu, pesé, condamné. S'il n'y a pas une loi avec sa récompense certaine et sa punition assurée, le remords n'a pas de raison d'être. Si le crime ne doit pas trouver un juge infaillible et un vengeur tout-puissant, le remords est une dérision de la nature."—*L'Immortalité*, par M. Baguenault de Puchesse, p. 76.

feeling of self-condemnation and pain, of which every transgressor is fully sensible? Whence springs that pitiless and implacable voice within our souls ever accusing, upbraiding and chiding us for our rebellion against an authority more peremptory in its commands than any to be found among earthly tribunals, and more actual and obtrusively near to us than any visible presence? Who will offer us an intelligible explanation of this voice, so sweet in its approval that some have thought such approval itself reward sufficient, and yet so terrible in its condemnation that even death is often sought and embraced as a less intolerable alternative?¹

The imperiousness of the voice of conscience, though quite one of the most remarkable, is also quite one of the best established facts in nature. It is impossible to deny its existence. It is impossible to explain it away as unimportant. It is impossible to confound it with the experiences of utility. It will sometimes

¹ "Infernus quidam et carcer animæ, rea conscientia est," says St. Bernard (Serm. de Assump. B. V. M.). And again: "Nulla pœna gravior prava conscientia". So, too, St. Ambrose asks: "Quæ pœna gravior, quam interioris vulnus conscientie? Nonne hoc magis fugiendum quam mors, quam inopia, quam exilium, quam debilitatis dolor?" (Lib. iii. Offic., cap. 4.)

lash a criminal so unmercifully and so goad him on, as to dry up every source of peace and happiness. In fact, as Canning observes :—

No evil is intolerable, but a guilty conscience.

Often, as history proves, it will drive men positively to seek what, under ordinary circumstances, they most fear and loathe, *e.g.*, death ; and not merely death, but a death of ignominy and agony at the hands of the common hangman. Again and again we read of men who have escaped detection after the perpetration of some ghastly murder, giving themselves up at last to the police.¹ In some cases they have borne the burden of their sin for many years ; so many indeed, that every trace of their guilt had vanished, and every clue which might have led to their apprehension had become obliterated, and all hope of discovery had been abandoned. It mattered not. In spite of this they could not rest. Their iniquity haunted

¹ As an instance take the case mentioned in the *Daily Telegraph*, 26th October, 1891, where it is stated that a certain Charles Green gave himself up at Bermondsey Police Station for the murder of Minnie Gilmour, whom he confessed he had shot eight months before in Philadelphia. He gave himself up because, as he said, "*I have not had an hour's rest since I did it*"—or, as the *Star* (24th October) put it, "*his deed so haunted him that he determined to hand himself over to the police*". Such an instance is but one among thousands.

them still. It rankled in their breasts. It dogged them wherever they bent their steps. It hung above them as a heavy cloud by day, it scared them as a pillar of threatening fire by night. In no case did it cease to harass them. They dwelt amid continual torments, and knew no peace. Anything was preferable to that. Better no life than life under such conditions. Hence conscience at last constrained them to deliver themselves up to the authorities, that they might be pinioned and hanged by the public executioner. Though such a death is held forth by the executive as the supreme and last threat to terrify evildoers, yet even such a punishment may be found more bearable than the stinging reproaches of an outraged conscience, which has justly been described as "the hell of a living soul".

Now, how shall we explain this conscience unless we postulate a future life where its unheeded warnings shall be avenged; how account for its impartial verdicts unless we postulate the existence of a God to impress His laws on the fleshy tablets of the heart?¹

¹"The very existence of conscience says Cardinal Newman, "carries our minds to a Being exterior to ourselves, for else whence did it come? and to a Being superior to ourselves, else whence its strange, troublesome peremptoriness?"

The echo answers, "How?" The necessity of an explanation is admitted by the most unbelieving men of science, but instead of accepting the simple Christian account, they have sought to substitute another in its place. Conscience, they assure us, is nothing more than "the accumulated experiences of utility". The old account of morality they describe as "absurd," while they calmly inform us that it is "through long experiences of the consequences of conduct that man has been rendered organically moral". To refute such an extraordinary assumption would need a treatise to itself.¹ We can do no more here than trust to the common sense of our readers in the matter, and pass on, merely reminding them that the orthodox or Christian theory is in possession, and that even on scientific grounds a new theory can never oust an old one, unless it can offer a more reasonable and a more complete interpretation of the phenomena under consideration. In the case before us theism offers us not only a more satisfying answer, but the only answer which is anything better than a subterfuge. By what "experiences of utility," we wonder, would a murderer ever

¹ This has been attempted in *The Evolutionary Theory as applied to Conscience*, p. 137.

arrive at the heroic determination to deliver himself up into the hands of justice?

But besides (1) the universal belief in God, and (2) the verdict, and (3) the remorse of conscience, there are many other psychological facts which admit of no satisfactory solution—except, always, on the supposition that the fundamental dogmas of Faith are true. Take, for example, man's insatiable thirst for happiness, on the one hand, and on the other the utter impossibility of at all adequately satisfying it here upon earth. Where else in all nature shall we find such a craving, such an irrepressible longing denied and balked of its satisfaction? Are all other wants capable of meeting with their appropriate satisfaction but this one? Is the strongest and most persistent of all yearnings to be the only exception to an otherwise universal law?

According to the teaching of Evolutionists a faculty never outgrows its environment, nor a muscle its use. If, owing to a change in the environment, a limb or a muscle has no longer any scope for exercise, it loses its power and becomes atrophied. Thus, if an eye dwell in constant darkness, it will gradually lose its efficiency, and in the course of a few generations its very power of vision will go. It grows blind without even becoming conscious of its

loss. In this manner, by a law of adaptation, every unoccupied and superfluous faculty of mind, or body (if not at once, at all events in time) will correspond with the conditions of its environment. But observe: this principle, though applicable in ten thousand other instances, refuses absolutely all application to man's mental faculties.

His capacity for happiness exceeds, by an immeasurable distance, the opportunities for it afforded him here. Were Darwin's principles just, man's capacity, after all these generations, should have shrunk and contracted to the level of its present opportunities. But nothing of the kind has taken place. Quite the contrary. Man was never so far dissatisfied, never so far above his surroundings, never so aspiring and desirous as at present. The more he gets, the more he wants; and the further he advances in knowledge and civilisation, the more extended and boundless grow his desires.¹ The delights

¹ "We, to-day, are sensible of a thousand wants which were unknown to our grandfathers, relating to comfort, hygiene, cleanliness, education, travel, social intercourse, and *it is certain our grandchildren will have further needs*. The more we see, the more we learn, the more our curiosity awakens, and *the more too do our desires increase and multiply*. Each invention, each idea that is born into the world engenders a whole generation of new wants."—See *Principles of Political Economy*, by Charles Gide.

of this world can never satisfy any one. No rational being exists whether man, woman or child who finds the pleasures of this life wholly sufficient, or even in a distant degree proportioned to his capacities. A sense of incompleteness and therefore of discontent is universal and rests upon every member of the race.

This discontent probably approximates to a qualified contentedness in the case of those only who believe in a state of future and eternal beatitude to which they can look forward. They are indeed content—content to *wait*.

If we compare the condition of man with the condition of all inferior beings, we cannot fail to note the striking difference. Whereas they afford unmistakable evidence of an end attained, man affords evidence quite as unmistakable of an end not merely unattained, but in the present order of things hopelessly unattainable.¹ The bird that sings to its mate on the waving bough, the fish that darts along in the crystal brook, the bee that murmurs in the bell of the foxglove, and indeed all sentient beings, down to the

¹ L'homme aspire à sortir de la douleur de l'imperfection, et chaque pulsation de son cœur est un désir de félicité. Quelle limite assigner à ce désir ? Il n'en a point :—

“ Borné dans sa nature, infini dans ses vœux,
Imparfait ou déchu, l'homme est le grand problème.”

—LAMARTINE.

industrious parasite or microscopic infusoria, manifest the most unequivocal signs of unclouded happiness and sweet content. They are satiated to the uttermost extent of their capacity. Even the thought of death cannot distress them, nor throw so much as a momentary shadow over their pleasurable existence. For death can cause no suffering except in anticipation, and to man alone it is given to anticipate.¹ When death is actually come to bird or beast, it extinguishes sensation and self-consciousness before its presence is so much as suspected, and when sensation is gone, why! then it is too late to learn.

Far otherwise is it with man. He has no practical experience of perfect contentedness.² "Man never *is*, but always *to be* blessed." Who, in sooth, drawing out the contrast between man on the one hand and the irrational beasts on the other, can hope to offer a really adequate explanation on a purely scientific basis? Here

¹ This is remarked by Schopenhauer : "Das Thier lernt den Tod *erst im Tode* kennen : der Mensch geht mit Bewusstsein in jeder Stunde seinem Tode näher, etc."

² "L'homme élèvera dans son cœur des amours plus vastes, plus purs et plus ardents, et de son cœur malgré tout s'échapperont encore les soupirs, les désirs, les défaillances et les regrets : il ne connaîtra pas le bonheur complet."—*La Nature Humaine*, p. 31, par C. Dollfus.

again we find that Religion will explain it : nothing else ever will.

Consider yet another fact that needs the teaching of faith to interpret it, *viz.*, man's perfectibility. Man's faculties are susceptible of endless expansion and development.¹ Not so those of the lower creation. Irrational animals attain the full perfection of their nature at once, and without difficulty. No one claims for them any sense of want when once their sensual instincts are gratified ; nor any strong inward impulse towards a more full and perfect life ; nor any of the irrepressible aspirations after higher and nobler things, such as are found welling up in the heart of every good man. If indeed there were no other life awaiting us, who would not envy the peace and calm of the unconscious cattle browsing in the meadows? Who would not right willingly exchange his humanity with the birds of the air—with the mischievous sparrow twittering and chirping so gaily among the eaves, or with the agile swallow skimming merrily, merrily over the

¹ "La volonté humaine, au lieu de s'amoinrir à mesure que sa puissance augmente, tend de plus en plus vers un pouvoir sans limite ; elle atteste à son tour *l'ambition de l'infini* qui nous remplit. *Le désir de l'infini constitue l'humanité.*"—*La Nature Humaine*, p. 30, par Chas. Dollfus.

glassy surface of lake or pond? They at least know no sorrow, nor care, nor poverty, nor disgrace. The sting of remorse, the bitterness of disappointment, the pangs of unrequited love, the anguish of separation and of death, and the blighting and destruction of long cherished hopes, are all forms of *human* trial that can never enter into their experiences.¹ They are as happy in their innocence, as they are innocent in their happiness. Man, on the contrary, though the lord of the visible creation, bears about with him the impress of sin and of guilt. His whole condition is a striking revelation of his fall from a higher state. That fact at least may be read in the history of the race throughout the centuries. Whence this remarkable fact? Ask an explanation of Faith, and it at once points to the fatal tree in the Garden of Eden, and then to the tree on the heights of Calvary; and the mystery is cleared up. On the other hand, demand an explanation of Science, and it can only meet our demand with empty words

¹ Like the Elf children, described by Musæus, irrational creatures are better off than we are, inasmuch as they are also "free from all the infirmities of childhood; they have no swathings to gall them; they teethe without epileptic fits; they need no calomel taken inwardly, get no rickets, have no small-pox, and of course no scars, no scum eyes or puckered faces; nor do they require any leading strings".

which explain nothing. Science will never be able to explain, for to Faith and not to bald Science has been entrusted the key of the riddle.

Man's entire being proclaims, as if with the lips of a herald, that there has been a wrench and a dislocation in his moral nature, from which he is still suffering. The dislocation of a joint, by the pain and unrest that it occasions, bears not a more eloquent testimony to the mishap that gave it birth, than man's moral and mental state bears evidence to the original transgression. Yea; in the sorrows, trials, disappointments and tribulations of life, one may read as in a book, unmistakable evidences of the terrible truth taught by divine revelation, that man is a transgressor, and the child of a rebel against the divine ordinance pre-established by the Fashioner and Ruler of the Universe.

Man's dread of death, and his vehement desire of immortality is yet another indication that he was never meant to perish utterly. Even apart from the natural fear of plunging into the unknown—itsself a consequence of latent Faith that all ends not with death—man possesses, under ordinary circumstances, an invincible desire to survive the dissolution of

the body.¹ "It seems a *strange* and REPUGNANT conclusion," writes Herbert Spencer, "that with the cessation of consciousness at death, there ceases to be any knowledge of having existed." (*Vide Facts and Comments*, by Herbert Spencer.) Huxley himself says: "I find my dislike of extinction increasing as I get older and nearer the goal. It flashes across me at all sorts of times with a sort of horror. . . . *I had sooner be in hell a good deal!*" Very much the same sentiment is expressed by M. de Genoude. His words are: "*Je me disais quelquefois que je préférerais une souffrance éternelle à l'anéantissement*".²

Man feels instinctively, even when death is actually knocking at his door, that the final goal has not yet been reached, and never can he willingly resign himself to annihilation.

Sure there is none but fears a future state;
And when the most obdurate swear they do not,
Their trembling hearts belie their boasting tongues.

—DRYDEN.

¹ "Impossibile est appetitum naturalem esse frustra. Sed homo naturaliter appetit perpetuo manere: quod patet ex hoc quod esse est quod ab omnibus appetitur: homo autem per intellectum apprehendit esse, non solum ut nunc, sicut bruta animalia, sed simpliciter. Consequitur ergo homo perpetuitatem secundum animam, qua esse simpliciter et secundum omne tempus apprehendit."—S. Thom., *Sum. con. Gent.*, ii., 79.

² Quoted by "W. W." in *The Spectator*, 17th Nov., 1900, p. 711.

Even here, while treading the sodden and workaday earth, man's mind's eye glances down a thousand bright avenues of possible delights which he knows he can no more traverse now, than he can wander through the golden fields of splendour that the sinking sun paints with its fairy brush on the western skies. Who has not experienced in certain favourable moods, silent and sudden flashes like rays through a riven cloud, lighting up his innermost soul, and enchanting every sense, with the purest and most entrancing promises of joys to come—joys, so answering the deepest hunger of the heart, so corresponding to the innermost thirst of the soul, that it leaps and bounds at the very thought, and realises that it is indeed made for their possession, whether it actually attain to them or not.¹ Yet how could we account for this fact did all end with death? The whole mystery of life becomes perfectly simple and

¹“ . . . So ergibt sich, dass die Unsterblichkeitsidee seit Beginn des menschlichen Geschlechtes bekannt und anerkannt war; ihr Ursprung datirt sich bis hinauf zum Urmenschen; sie ist mit dem Finger Gottes eingeschrieben in die Menschenbrust und mit Menschenhand in die Urkunden des grauesten Alterthums. . . . Sie existirt bie den ältesten Culturvölkern, Sinesen, Indern, Persern, Aegyptern, eben so gut, wie bie den Naturvölkern, wie sie sich noch in unserem Jahrhunderte in Amerika, Afrika, Australien vorfinden.”—*Die Unsterblichkeitsidee im Glauben*, von Dr. L. Schneider p. 982.

intelligible when the true Christian explanation is accepted. On any other theory it becomes an involved and complicated tangle which no one can unravel. According to the principle laid down by Haeckel and other scientists we should always accept the theory which best meets and disposes of the phenomena to be accounted for.¹ This, in the case before us, is undoubtedly the Christian theory of One God the Ruler and Controller of the Universe, etc. Then, let us be logical, and accept the Christian theory.

The foregoing reflections are, of course, not intended to contain the full weight of proof in support of the Theist's position. They have been introduced to serve merely as a preamble, and to show an *à priori* reasonableness of the supernatural explanations of life. Had we nothing more to show for our belief in God and a divine Providence than what is touched upon in this chapter, it would still suffice to establish a claim for our theory over every rival. But, of course, there are innumerable special proofs which are too well known, however, and too

¹ Thus, to give an example of the practical application of this principle, we may instance the case of light and heat. The *sole* reason why the "emission" theory of light and heat has been given up by scientific men, and that the "vibratory" theory has taken its place, is because "the vibratory theory gives a more satisfactory and a completer explanation of the phenomena in question than the older theory".

well propounded in books accessible to all, to need reproducing here.

We will then conclude by reminding our readers of one last fact, which would be as inexplicable as the rest, were God but a myth and eternity but a dream, and that is, that the wisest and best men—those possessing the noblest dispositions and the most gifted intellects—have been the very readiest and most anxious to acknowledge a God and a life beyond the grave. That the holiest should be in error, and the wisest deceived, would be sufficiently strange if true ; but it would be far stranger still and almost incredible if the sublimest acts of heroism and generosity ever performed, and the highest virtues and the noblest deeds ever practised, had all been inspired by a hope that is delusive ; by a faith that is false ! The life of a single great saint is inexplicable unless the supernatural be admitted ; but when we have to account for not one, but hundreds of thousands, indeed millions, the argument assumes overwhelming proportions, and becomes, to an unprejudiced mind, wholly irresistible.

So soon as the existence of God and a future life becomes recognised as a necessary hypothesis, the mind will readily be convinced of the propriety and urgency of a divine revelation

to put man in communication with his Maker. Revelation once admitted, the whole principle of divine authority is securely introduced ; and in the presence of a fully recognised authority, all particular difficulties and objections regarding the supernatural effects of prayer, and the sacraments, and the rest, must dwindle away and speedily vanish. The power of Baptism to purify and sanctify the human soul, for which the supposed infidel in our opening pages sought ocular and empirical proofs, will then be found (like all other special doctrines of revelation) to rest on a yet firmer and securer ground, namely, on the unswerving basis of a divine promise and institution.

The single hypothesis of an Infinite Being will account for the following facts :—

1. The universal belief in a God.
2. The verdict or judgment of Conscience.
3. The remorse and pain following on a disregard of the dictates of Conscience.
4. The desire for a happiness not attainable in this world.
5. The perfectibility of imperfect man.
6. Man's instinctive dread and fear of death.
7. Man's inward sense of personal imperfection, and of a destiny as yet unattained.

To this list we might add many other items.

Natural selection of course professes to account for everything, and to dispense with the necessity of God, but that system exhausts itself in postulating, and multiplies hypotheses beyond all reason, and in defiance of the well-known axiom generally called Occam's razor, which lays down the principle that—"ENTIA NON SUNT MULTIPLICANDA SINE NECESSITATE".

THE EVOLUTIONARY THEORY AS APPLIED TO CONSCIENCE.

"Two things are awful to me: the starry firmament, and the sense of Responsibility in Man."—IMMANUEL KANT.

"*We* are the miracle of miracles, the great inscrutable mystery of God. We cannot understand it, we know not how to speak of it; but we may feel and know, if we like, that it is verily so."—CARLYLE.

No theory in modern times has caused so widespread an interest, or excited such universal attention, as the theory of evolution. No theory has been so warmly advocated by its partisans, or so violently assailed by its enemies. While scientific agnostics have seen in it the opening of a new era and the answer to a thousand puzzling difficulties, many Christians have regarded it as an engine of fearful power, and likely in the hands of unscrupulous men to lead to the destruction of the whole spiritual fabric.

There is indeed a strong tendency in man to press an idea to its utmost limits. No

sooner is some new theory started, and considered available for the explanation of certain phenomena, but there arises a strong desire to explain every hitherto unexplained phenomenon by the same method. Man naturally seeks uniformity, and strives to reduce everything to known laws.

In these days the attempt is being made to explain, on wholly natural grounds, the present condition not merely of the material universe, but of all religion and morality as well. Because the theory of evolution seems to explain, at least in some measure, the origin of species, the formation of fruits, the variety of plumage in birds, of colour in flowers, of structure in plants, and of endowments in animals, it is thought that it may also be applied with success to the solution of such a question as the origin of man, considered not merely as a physical and sensitive animal, but even as a moral and responsible agent.

The evolutionary hypothesis as applied to man's *physical* nature we have already considered elsewhere.¹ We propose now to invite attention to the subject of this same hypothesis as applied to man's *spiritual* nature, or (to

¹ See *Irish Ecclesiastical Record*.

confine ourselves within the limits of a single chapter), let us say, as applied to man's conscience.

The task before us is to show that the facts of conscience cannot be accounted for on any mere evolutionary hypothesis.

The importance of this contention cannot be exaggerated, for of all proofs of the existence of God and of a future life, the facts of conscience are the strongest and the most convincing. Nothing discourses so eloquently of the supernatural. Neither the visible creation nor the traditions of men bear such a witness to an invisible and a future state as conscience. If conscience therefore turns out to be a mere development—if, as Huxley believes, "we shall sooner or later arrive at a mechanical equivalent of consciousness, just as we have arrived at a mechanical equivalent of heat"¹—then its dictates, being unsupported by any divine sanction, may be repudiated and disregarded at will. The simplest and readiest method of refuting the evolutionary hypothesis in its relation to conscience is to state as clearly as possible :—

1. In what the theory consists.

¹ See *Lay Sermons*, ch. xiv.

2. What the theory postulates.

3. And then to show, in the third place, that its postulates are irreconcilable with facts ; we shall, in fact, disprove the theory by (*reductio ad absurdum*) reducing it to an absurdity. Let us to the task.

According to the extreme evolutionary school, conscience is merely a result of the slow growth of ages. To our earliest progenitors such a mental phenomenon was unknown. It sprang up and developed gradually—almost imperceptibly—under the influence of external stimuli, in a manner exactly analogous to that in which organic development is said to have taken place. In fact, the general principles of “natural selection,” and “the struggle for existence,” and “the survival of the fittest,” are applied to mind, just as they have been applied to matter. Thus, just as any special condition of limb or organ in an animal which gives it an advantage over rivals in the general struggle for existence is likely to be transmitted, and to be gradually still further improved and perfected, so will it be with any disposition of soul or any mental bias. If certain inclinations or disinclinations lead to actions favourable to the general well-being of the race, such inclinations or disinclinations will in a

like manner be preserved, transmitted, and still further accentuated in the descendants. And what is true of inclinations holds good also of all kinds of judgments, views, and opinions.

In order to diminish as far as possible the mist that involves the general proposition, we will set aside, for the nonce, conscience in general and examine some of its decisions in particular, and see how evolutionists would explain their origin. Now, the essential characteristic of conscience lies in the power it possesses of passing judgment on the virtuousness or the viciousness, the justice or the injustice, of any thought, word, deed, or omission. Take an example : Conscience declares in unmistakable terms that intemperance and gluttony are sins. What does that verdict imply ? With us Catholics that statement cannot be reduced to any simpler terms ; it admits of no further analysis. It is nothing else than the voice of God speaking to our hearts and telling us what is His will : telling us what He would have us do, what He would have us leave undone. Not so with evolutionists. With them conscience is merely a sort of register of past experience. It is nothing more than the echo of the mighty voice of all past generations resounding in the

ears of the present generation. It is a warning, based upon a past experience, of the deleterious effects of certain acts and the advantageous effects of others. To the first set of acts is given the name of vices ; to the second the name of virtues. Thus, according to this system, "vice" and "virtue," "right" and "wrong," come to mean nothing more than "useful" or "harmful," "advantageous" or "disadvantageous," "beneficial" or "injurious". Though Catholics and full-blown evolutionists alike admit that conscience condemns intemperance, theft, adultery, and murder, yet while the followers of Christ condemn such acts as *intrinsically* wrong, the followers of Darwin and Spencer interpret such condemnation in a totally different manner. We say that theft, murder, etc., are condemned because *intrinsically at variance with a supreme and immutable standard*. In the Darwinian and Spencerian sense such condemnation simply means that such practices are opposed to the general temporal welfare of the race. With evolutionists, to say that they are sinful indicates simply that they are injurious to, and calculated to retard or to jeopardise, the material and social prosperity of mankind.

It is not, of course, necessary—according to

the Darwinian theory—that individuals should still, at the present time, realise the injurious effects of actions condemned by conscience. What that theory, however, does suppose is that any injurious practice will leave its mark behind it, and become in the course of ages worked up into the very texture of each living descendant, in such a manner as to produce an irresistible sense of dread and responsibility ; a feeling that the practice should not be indulged in and that any such indulgence is sure to be followed by some undefined and indefinable penalty. At this stage we may say that the development of conscience is in full operation. In fact, the moral intuitions, or, as we should express it, the voice of the Holy Spirit instructing the soul made to the image of God, in the ways of salvation, evolutionists consider to be nothing else than (to use their own words) “the result of accumulated experiences of utility”.

The statement, “intemperance is a sin,” is thus equivalent to “intemperance is opposed to the temporal interests of the race”. The knowledge of this truth has been acquired gradually and imperceptibly, and while the innumerable instances of harm done in the past have been forgotten, the broad fact to which

each instance has pointed—*viz.*, “intemperance must be avoided”—is transmitted from generation to generation with an ever-increasing force and momentum. If the myriads of distinct and individual cases of evil caused by over-indulgence be represented by a corresponding number of distinct forces, then Conscience will be represented by the Resultant of the combined forces. In a word, the general broad conclusions remain and are perpetuated, while the innumerable special instances on which these conclusions are in reality based are effaced from the tablets of the mind. Thus the consciousness of the sinfulness of the vice of intemperance would (on this hypothesis) have come about gradually and somewhat in this manner: In remote times undeveloped men were ruled and controlled not by sound reason, which was then only beginning to dawn, but by all sorts of fancies, prejudices, opinions and whims. The superstitions lingering in some quarters at the present day—that it is unlucky to travel on a Friday, or to sit down thirteen at table; that the owl is a bird of ill-omen, and that the sight of a magpie is a forerunner of evil—may be taken as modern instances of a state of mind at one time almost universal.

Now observe, however varied these opinions

and prejudices might be in different men, they would in each case influence and help to shape conduct, behaviour and habits of life ; and of these countless strange opinions and prejudices those which led to actions beneficial to the race would always have a better chance of spreading and perpetuating themselves than such as would lead to a mode of life injurious to the race. While the one set of judgments would in consequence gradually perish, the other set would survive and grow stronger. Thus : while the superstitious beliefs that ill will result from (1) sitting down thirteen at table, (2) from travelling on a Friday, and (3) from seeing a magpie perch near the house, or (4) from hearing the owl screech, are dying out *because they confer no advantage* upon those who hold them, other superstitious beliefs (we must use this word while speaking in the evolutionary sense)—*e.g.*, that telling lies and cheating or stealing will lead to evil—not only remain, but are becoming more deeply rooted than ever, and this is so because superstitions *such as these, do confer a decided advantage on society*, and render social life and intercourse more easy and profitable. Let us suppose an extreme case by way of illustration.

Suppose there are 500 families living on a

desert island controlled wholly by superstitious and vain fears and prejudices ; suppose half of them, influenced partly by the horrible nightmares and partly by digestive troubles occasioned by too sumptuous repasts upon buffalo-steaks and monkey-soup, conceived the notion that such excessive eating is being punished by the spirits and genii of the forest. As a consequence, many of their number will persuade themselves that, for fear of arousing still further resentment, they must eat and drink more sparingly. We will call that section of the population Class A. Suppose that the other half of the community (whom we may call Class B) are free from such nightmares and digestive troubles, and in consequence continue to eat and drink to excess as often as the occasion offers. What would be the result in the long run? Why, the unrestrained indulgence in eating and drinking would be fraught with most disastrous consequences, which would soon begin to tell upon the constitution and to threaten the very existence of Class B. Class A, on the contrary, under the influence of fear, would abstain from strong drink and eat in moderation ; they would in consequence retain their wonted vigour and strength, while the more luxurious swains belonging to Class B

would soon begin to experience the effects of their excesses. Excess would tend to produce disease, to shorten life, to render them less fit (*ceteris paribus*) in the general struggle for existence. Their chances of survival would diminish more and more as compared with others less addicted to intemperance. But while Class B are thus steadily deteriorating, Class A, on the other hand, with their prejudice against excess, and their consequent abstemious and sober habits, would improve. They would, in the natural course of things, live longer and beget healthier children, who would inherit the prejudices of their parents in a heightened degree; and when quarrels arose and wars were waged between these savages, Class A would come off victorious, and Class B in course of time would dwindle away, and might at last die out altogether, like the aborigines of Tasmania. Thus the tendency to condemn and denounce intemperance would become more and more pronounced as time wore on; and as the root of a tree or plant in its course through the soil will follow the path of least resistance, so the more prosperous races of men, other things being equal, will follow the path of least intemperance, *i.e.*, the path least opposed to their health and vigour.

Thus, assuming the existence of a population half of which approve and half of which disapprove of intemperance, we shall find that the uniform *tendency* of natural selection will be to increase and multiply the number of those who hold a prejudice against intemperance, and to weed out, and perhaps even to wholly destroy those who have no such prejudice. To sum up:—*its tendency is to make universal those opinions which are beneficial, and to stamp out and destroy opinions which are injurious; so that in this way, a constant effort is ever being made by Nature to construct a "conscience" or a "universal judgment" condemnatory of what will bring ill and commendatory of what will bring good to the human species.*

Thus, by a process of "natural selection and a survival of the fittest," as applied to opinions, prejudices, whims, superstitions, and fancies, the human conscience, as we now know it, has at last been formed. The accumulated experiences of the race regarding the deleterious effects of various actions have become stored up in each individual, so that (without necessarily knowing or adverting to the cause) he instinctively condemns certain acts and approves of certain others. In this way the present generation has acquired the power of seeing an

enemy in drunkenness and intemperance, just as the race of sparrows has acquired a power of detecting an enemy in the hawk, even the first time it encounters one.

What has been said of intemperance must, of course, be applied to every other act or habit which conscience stigmatises and condemns. To use the *ipsissima verba* of the evolutionary school, "all moral rules are merely expressions of those social adaptations which, on the whole, and after infinite gropings, prove most serviceable in the preservation of groups of human animals in the struggle for existence". In fact evolutionists actually define morality as "the sum of the preservative instincts of society". As Schurman very truly observes: "The fortuitous origin of morality through a process purely mechanical must, I think, be regarded as the fundamental tenet of the school". "The moral faculty is the result," they contend, "of all those experiences whereby mutually repellant individual animals were fused together into society and enabled to perpetuate a victorious existence."

In fine, "as natural selection has endowed the eagle with his eye, the bee with her sting, and the lion with his rage and strength, so must natural selection have endowed man not only

with an erect attitude, but also with a reason that looks before and after, and a *conscience* that responds to right and wrong”.

Such is the doctrine of evolutionists, and, as has already been observed, it follows from it that there is no such thing as absolute right and wrong, and no such thing as absolute good or bad. These terms are merely relative. In the words of Mr. Spencer, “the good is universally the pleasurable”; and “conduct is made good or bad solely by its pleasure-giving and pain-giving effects”. Conscience is thus reduced to nothing better than “the social instinct, illuminated by intelligence”. From this it follows that in another condition of life the dictates of conscience might be totally different, and even opposite to what they now are. What it now approves it might then condemn, and what it now condemns it might then approve. “If, for instance,” says Schurman, “men were reared under precisely the same conditions as hive-bees, they would possess a conscience which required unmarried women, like the worker bees, to kill their brothers, and mothers to kill all their fertile daughters,” and to do so would be to exercise virtue and religion.

So far we have attempted merely to state and explain the theory. Our next effort must be to

refute it. For this purpose we will summarise as clearly as possible what the theory postulates, and then endeavour to show that its postulates—those very postulates upon which its whole existence depends—are irreconcilable with facts, and in the most glaring contradiction with experience. And therefore, that it cannot be admitted.

On a careful analysis of the theory, it will be found that two propositions are insisted upon throughout, and, in fact, taken for granted:—

Prop. 1. Every practice which is injurious to the temporal well-being of the community will, in the course of time, draw down upon it the condemnation of conscience, and will be registered in the mind as a vice.

Prop. 2. Every practice which is advantageous to the temporal well-being of the community or race will, in the course of ages, call down upon it the approval of conscience and be registered as a virtue.

And this because the evolution of conscience is the gradual but continuous “realisation of utilities”. Darwin informs us that “any being, if it vary, however slightly, in any manner profitable to itself, will have a better chance of surviving, and thus be naturally selected”. But a human intellect condemning an injurious practice varies from those which approve or

tolerate it, in a manner "profitable both to itself" and to every mind subject to its influence; and therefore it also will have a better chance of surviving, and will be naturally selected. "Hence," to quote Schurman's words, "it follows that the moral sentiments, as motors tending to the preservation of the tribe, must, like the mental faculties, be self-preserving and self-accumulating under the utilitarian sway of natural selection."

What follows from this? Well, that every deleterious practice should be condemned by conscience, and every useful and advantageous practice should be raised to the dignity of a virtue. But is there a vestige of truth in such an allegation? Is it in any degree true? Assuredly not. As in many cases conscience refuses to condemn what is undoubtedly injurious to the temporal well-being of the race, so, on the other hand, it frequently refuses to approve what is equally clearly to the advantage of the race. That is to say, it acts again and again in a manner diametrically opposite to that which is necessarily postulated by the evolutionary theory. A single instance will make this evident. What would obviously affect the general well-being of our wild and uncouth ancestors more than the quality and

nourishing properties of the food upon which they lived? Hardly anything. Let us once again have recourse to our previous example of the island with its population of 500 families. Instead of the habit of intemperance we will now substitute the habit of eating unwholesome food. Hence, dividing the population as before into Division A and Division B, we will suppose that all those included under Section A, owing to the circumstances of their position, are perfectly well able to nourish themselves on buffalo-steaks and wild fowl, while the families forming Section B are compelled to satisfy their hunger with such poor and indigestible food as sour fruit, raw nuts, and unpalatable roots. The latter practice would be fraught with as many disastrous consequences as intemperance itself, and, in a few generations, the families following such a *régime* would ill compare with their better-fed neighbours. Their indigestible food would bring on dysentery and digestive troubles. It would reduce the strength and vigour of the tribe, and tend to shorten life and to lessen the chances of survival in the general struggle for existence. Section A, on the other hand, enjoying more nutritious and digestible food, would be healthier, in a better bodily condition, and more likely than their neighbours to

overcome the obstacles to still further development. They would beget healthier children. These would inherit the same or a still stronger taste for buffalo-steak and roast ducks, as well as a stronger aptitude and cunning in hunting or trapping their game, while these qualities would carry the next generation on to a still greater vantage-ground in the struggle for existence.

But this is not all. If the evolutionary theory be true, a far more momentous consequence must follow. The acquired *experience of the utility of a more generous over a less generous diet* must give rise to a conscience proclaiming it sinful to live exclusively on roots and unripe fruits, and virtuous to live on animals and game, just as, *ex hypothesi*, it has declared drunkenness to be a vice, and sobriety to be a virtue—and why? Because evolutionists tell us that “moral intuitions are the result of the accumulated experiences of *utility*”. Here we clearly see this supposition to be contrary to experience.

Indeed, a thousand practices might be pointed out which are unquestionably injurious to the temporal prosperity of the race, and against which, notwithstanding, conscience refuses to utter a single syllable of protest. But

if "moral intuitions are," as these scientists insist, "the result of accumulated experiences of utility," how comes it that we have no moral intuitions, or in other words, no conscience condemning indigestible food, extreme poverty, incessant labour, broken sleep, and cold and nakedness, etc.? Considering how such things militate against the natural well-being of the race, they should by this time have reached a degree of sinfulness perfectly horrifying to contemplate.

Even if it were possible in these cases to excuse the failure of conscience on the plea of its still incomplete development, and the insufficient time that has been allowed it to evolve, no such excuses will avail (on the evolutionary theory) in cases in which conscience positively condemns what is not only not injurious, but what is absolutely advantageous to the public weal. On the hypothesis we are considering, conscience can never condemn any practice from which the human race as a whole would derive real temporal advantage. The very definition of conscience as "the result of accumulated experiences of utility," renders such a supposition absolutely impossible. Indeed, the whole object of evolutionists is to make conscience purely and simply the experi-

mental knowledge of the race, rendered articulate in each member of its modern representatives, enjoining the useful and forbidding the opposite. If, therefore, it can be shown that conscience does not always approve of what is useful, yea, if it be proved that, so far from doing so, it sometimes does the very opposite, we may surely conclude that the evolutionary account of conscience is a false one, and without any solid basis to rest on.

Now, we will make bold to suggest an instance, in which conscience strictly prohibits a practice, distinctly beneficial to the material progress and welfare of the human race. In introducing the instance, it will be well to begin by calling to mind the congested condition of so many countries at the present day, and the millions of poor who are living on the very verge of penury, as also the competition for work, which is so keen and pressing that tens of thousands are forced to accept starvation wages, while thousands of others cannot get employment on any conditions whatsoever. Every year many persons in our largest towns die of hunger and privation. Now, in all circumstances, but especially in congested centres where the populations are unusually dense, and life, even for the strong and the

healthy, is a hard and continuous struggle, it would be a very great advantage (merely, of course, from a *utilitarian* view) to destroy, by some painless anæsthetic, every diseased, deformed, or hopelessly imbecile infant as soon as possible after it is born. Any unbiassed man looking *exclusively to the terrestrial good of the race as a whole*, and to the formation of a more robust and healthier people, and to an exchequer less burdened by debt, must confess that the practice of such a carefully discriminating infanticide would be a decided gain. Indeed, this view is neither a novel one, nor is it merely a speculative one. It is a view which has been actually propounded and approved by the most learned and the wisest among non-Christian writers and philosophers. Nay, more, it has actually been carried out in practice, not among savages and barbarous tribes only, but among the most civilised and cultured nations of antiquity. Plato and Aristotle, who are certainly reckoned among the greatest intellects that ever lived, agree upon this point. "Both of them," says Mr. Grote, "command that no child crippled or deformed shall be brought up; a practice," he adds, "actually adopted at Sparta under the Lycurgean institutions, and even carried further, since no child was allowed to

be brought up until it had been inspected and approved by public nurses" provided for the purpose. "The Romans, too, were legally permitted to expose deformed children."

A practice so beneficial as this, when once introduced, should most assuredly (on the evolutionary hypothesis) have impressed the human conscience with a sense of its utility, and become binding as a permanently fixed moral intuition. And since such "moral sentiments as tend to the improvement of the tribe must be not only self-preserving but self-accumulating, under the utilitarian sway of natural selection," the practice should by this date have secured for itself not merely tolerance, but the highest approval of moralists. To destroy unprofitable infants should be one of the highest and sublimest of virtues, almost qualifying for canonisation. So much for the postulate of the theory. But what is the fact? While from a *purely utilitarian* point of view its advantages are *self-evident and undeniable*, nevertheless, from a moral point of view, its deformity and iniquity are more self-evident still. No Christian would or could allow it.

Notwithstanding its acknowledged social utility, notwithstanding its admitted advantages, notwithstanding even its having been at one

time actually practised on a large scale by the most civilised pagan races on earth, Conscience still rises up, and, shaking off all such utilitarian wrappings, condemns it in the most absolute and unqualified terms ; yea, condemns it utterly, unconditionally and fearlessly and peremptorily, in spite of all that the united voices of utilitarians can urge in its favour. While freely admitting the possible benefits that such a practice might confer on society at large, conscience declares, in the clearest and most emphatic language, that to kill a child, even though it be but an infant, and the most diseased and imbecile infant that ever breathed, is rank murder, and a sin crying to heaven for vengeance—a crime not to be tolerated by any civilised nation.

This fact, which is but one selected from countless others, is utterly irreconcilable with the evolutionary hypothesis of conscience. An evolved conscience, from its very *raison d'être*, could never condemn in this unqualified manner acts which never had, and never could have had, the least prejudicial effects upon the prosperity and well-being of any race or tribe or people whatsoever. The whole purpose of the “developed conscience” is to promote the temporal welfare of mankind as a whole at the expense of individuals. In the instance before

us it not only fails to do anything of the kind, but it does precisely the reverse. It espouses and safeguards the interests of the individual child even though it be to the prejudice of the entire world.

The fact is that nothing that Darwin or Spencer or Haeckel or any of their learned followers have said suffices to account for conscience as we actually find it. Their ingenious theories and explanations of its genesis would perhaps serve to account for a conscience such as might have been fancied or imagined, but in no way does it serve to account for conscience such as we know it to be. We are forced to seek elsewhere for a satisfactory explanation of the phenomenon. It has been laid down by the evolutionary school that "the ancestors of man had no moral fibre in their constitution, but through long-inherited experiences of the consequences of conduct man has been rendered organically moral". To such an assertion the positive facts give the lie direct, and so demonstrate the entire theory to be as baseless as the fabric of a dream. On a thousand practices incontestably injurious to the race conscience positively refuses to utter one syllable of condemnation; on the other hand, many practices undoubtedly useful and profit-

able to the temporal prosperity of mankind, conscience, nevertheless, places under a ban.

The plain fact thrust upon us is that the account of the origin of conscience proposed by evolutionists, though clever and ingenious, and even workable up to a certain point, will not bear a close scrutiny. On a careful examination the theory fades away, as fade the bright figures projected by the magic lantern, as soon as daylight is allowed to fall upon them. To speak of conscience as Herbert Spencer does is to ignore its essential character. Conscience approves and disapproves, justifies and condemns, both single acts and lines of conduct wholly independently of their influence upon the temporal prosperity of the race. The truth is, conscience asserts a higher law than the law of utility ; it defends and safeguards higher interests than any interests of time, and points in unmistakable language both to a Law-giver and to a sanction of which mere sense can take no cognisance whatsoever. It even whispers to us of a better life and of a wider sphere of action, and throws startling gleams of light into that mysterious future world, before whose portals paces the grim sentinel Death.

WHAT NATURE SAYS OF ITS CREATOR.

"Of the causes which have led to the origination of living matter it may be said that *we know absolutely nothing*. . . . The present state of knowledge furnishes us with no link between the living and the not living." — HUXLEY, *Encyc. Brit.*, Art. "Biology".

If we consult the oldest record extant, and study the pages of the Holy Scriptures, we shall find it recorded by the inspired writers that the vast and immeasurable universe, in the midst of which our little earth floats like a tiny mote, was formed during the course of six days. "In six days God made heaven and earth, and the sea, and all things that are in them" (Exodus xx. 11). But we must bear well in mind that the Hebrew word "*yôm*,"¹ which has been translated "*day*," does not always, strictly speaking, signify "*day*" but rather an indefinite term

¹ "If we are seriously to study the value and Scriptural acceptance of Scriptural words and phrases, I presume that our first business will be to collate the use of these words in one part of Scripture with their use in other parts holding the same spiritual relations. The creation, for instance, does not belong to the earthly or *merely* historical records, but to the spiritual records of the Bible ; to the same category, therefore, as the prophetic sections of the Bible. Now, in those and in

or period.¹ Vigouroux observes that "Moses was *obliged* to use the word *yôm* to signify period or epoch, as there is *no special word in Hebrew* to express this idea" (quoted by Zahm, p. 94). Hence, as all competent Hebrew scholars assure us, the more accurate rendering of the original text would be: "In six periods God made heaven and earth," etc.

Now, the interesting question arises: What was the length of those periods? For many centuries it was commonly thought that they were six periods of exactly four-and-twenty hours each. Geology and the other natural sciences were then almost or entirely unknown; there was, consequently, no solid basis on which to form an accurate opinion; so, in the absence of

the Psalms how do we understand the word *day*? Is any man so little versed in Biblical language as not to know that (except in the *merely* historical parts of the Jewish records) every section of time has a secret and separate acceptation in the Scriptures? Does an *æon*, though a Grecian word, bear Scripturally (either in Daniel or in St. John) any sense known to Grecian ears? Do the seventy *weeks* of the prophet mean weeks in the sense of human calendars? . . . Who of the innumerable interpreters understands the twelve hundred and sixty *days* in Daniel, or his two thousand and odd *days*, to mean, by possibility, periods of twenty-four hours? Surely the theme of Moses was as mystical, and as much entitled to the benefit of mystical language, as that of the prophets."—*De Quincey's Works*, vol. iii., pp. 204-5.

¹ See, e.g., among others, *Origine du Monde*, etc., by M. l'Abbé Motais; *Manual Biblique*, by M. Vigouroux; *Geology and Revelation*, by Rev. G. Molloy; *La Religion en face de la Science*, by Arduin; *Life after Death*, p. 18, 9th edit.

any reliable indication as to their real duration, an ordinary day was considered the most natural and satisfactory interpretation. As, however, time wore on and men began to devote more attention to the study of the earth and to the structure of its crust ; and as science advanced and extended its boundaries, this opinion grew less universal, and little by little lost its hold altogether upon the minds of men. Geologists learnt by slow degrees how to read the history of the earth in the rocks, as in a book. Nature itself was persuaded to discourse to man so soon as he had, by hard application, made himself capable of understanding its strange language. The earth told him much of its own wondrous birth and infancy ; and delivered up to him secret after secret of its gradual development and growth. So that just as we may ascertain the age of a tree by the number of concentric rings forming its trunk, or the age of a deer by the number of branches or shoots on its antlers, so in a similar manner we may form a tolerably correct idea of the stages through which the earth has passed, and the duration of its existence, by certain well-known indications in its strata. The result of these investigations has been to convince men that the "days" or periods of creation were not terms of twenty-four hours,

but long periods of hundreds of thousands, or even of millions, of years. "Geologists are almost unanimously of opinion," says Professor Wallace,¹ "that to account for the phenomena presented by the known series of rocks, and their included organic remains, the very least time that must be allowed is one hundred million years." There is of course nothing contrary to Scripture in this view, since the Scriptures leave the duration of the creative day quite vague and undefined.

According to the more generally accepted theory of science, the earth we inhabit began as a vast circular ball of fiery vapour revolving around a central point. All the existing material elements which go to make up the earth, such as the rocks, the metals, the crystals; as well as the carbon, hydrogen and oxygen, and other substances of which the animals and plants now living on its surface are composed, were then *existing* certainly, but in a condition of such intense heat that they were all maintained in a gaseous form. "It is plain," writes the learned Father Harper, S.J., in his *Metaphysics of the Schools*, vol. ii., "that according to the teaching of St. Thomas and of the Fathers of

¹ *The Fortnightly Review*, 1892, p. 579.

the Church, the *primordial elements alone were created* in the strict sense of the term, and that the rest of Nature was developed out of these according to a fixed order of natural operation, under the supreme guidance of the Divine administration." ¹

In the course of slowly unfolding ages the fiery vaporous earth began to part with its heat by radiation into space, and to cool little by little. As it cooled, like all cooling bodies, it contracted and became more compact. At last, after many ages, amounting, some say, to millions of years, the temperature became so far reduced that a hard film or crust began to be formed on its outer surface. This constantly gained in thickness and solidity, till at last it surrounded the earth as the rind surrounds an orange. The heavier substances, and those which solidify at a higher temperature, were by this time precipitated and formed a portion of the hardening nucleus of the earth. The seas and oceans, however, were still held suspended in the form of steam or vapour high

¹ The professor of theology at the University of Breslau, Father Schultz, makes a similar observation: "Erhielt sich die Ansicht, dass Alles zugleich und ohne zeit geschaffen sei, auch im Mittelalter. Sie findet sich noch bei Thomas Aquinas (*Sum.*, i., 19) und, nach Petavius (*De Theo. Dogm.*, iii., cap. v.), auch bei Cajetan u. A."—*Die Schöpfungsgeschichte*, p. 328.

up in the regions of the air. As centuries elapsed and the temperature sank lower and lower, these aqueous vapours condensed and fell upon the earth in the form of heavy and almost continuous rains. As they fell upon the earth's surface little runnels were formed in all directions. These gathered into torrents, streams, and great roaring cataracts and rivers, which, flowing together, filled the hollows and more depressed regions, and so gave birth to the original lakes and seas and wide-stretching oceans, where storms and hurricanes and furious winds kept high revel, and so churned and troubled the turbulent waters that, compared with the tempests of that period, the wildest tempest of our day is little better than a storm in a tea-cup.

At this stage of the world's history another notable change comes over the scene. The warm, steamy atmosphere of the still heated earth begins to stimulate the energies and vital principles lying dormant in the virginal soil. The green grass slowly forces its way up through the yielding mould and spreads like a carpet far and wide. Herbs, and shrubs, and trees of various kinds spring up and propagate themselves in all directions, increasing in number and stature year by year, till the

earth shows at last like a vast tropical garden. Thus things continued to progress, so that by the time the carboniferous period had fairly set in, the whole land was covered with the most luxurious and gorgeous vegetation. On all sides vast forests of gigantic trees sprang into life, stretching their colossal limbs high into the air, while innumerable creepers and trailing plants, with soft, succulent, and spongy stems and large, broad leaves, covered almost the whole of the hot, soppy, and swampy soil. Their number and luxuriance may be inferred from the great coal measures, often many yards in thickness, which they have deposited in the course of their gradual decay. "In the early time there was no aerial animal life on the earth, and so late as the carboniferous period there were only reptiles, myriapods, spiders, insects, and pulmonate molluscs" (DANA, p. 353).

But a little later great monsters began to move in the deep, and wondrous forms of birds and beasts, long since extinct, might have been heard crashing through the underwood in the sombre glades of the forests, or splashing or gambolling on the shore of lake or inland sea. The remains of these great unwieldy creatures are still occasionally met with, im-

bedded in the rocks. In the palæontological department of the British Museum various most interesting specimens may be seen and examined : such as the skeleton of the American mastodon, an animal closely allied to the elephant ; and the skull of the *Elephas ganesa*, remarkable for the immense length of its tusks. There is also a model of an entire skeleton of the *Dinoceras mirabile*, one of the most remarkable of the many wonderful forms of animal life lately discovered in the tertiary beds of the western portion of the United States of America. This animal combines in some respects the characters of a rhinoceros with those of an elephant, while it has others altogether special to itself. The group to which it belonged became extinct in the miocene period.¹ In addition to these the interested visitor may feast his eyes on the remains of the famous lizard-tailed bird (Archæopteryx) of the Solenhofen beds of Bavaria ; and a series of skeletons of the “ Moa ” or *Dinornis* of New Zealand, a bird in which no trace of a wing has been discovered. There is also a fine assemblage of reptilian remains, such as the great sea-lizards and sea-dragons (*Plesiosauria*

¹ See *General Guide*, p. 48.

and *Ichthyosauria*) and the gigantic *Dinosauria*, by far the most enormous of all land-animals, while at the eastern end of the gallery are the *Pterosauria*, or flying reptiles¹ (p. 50).

The relics of these and other extinct monsters are occasionally discovered in the various strata of the mesozoic period, which includes the cretaceous, jurassic, and triassic layers. Owing to the similarity of the general plan upon which each distinct class of living creatures is built up, it is often possible to form a very fair notion of an antediluvian or prehistoric beast or reptile from very scanty data. On the principle of "*Ex pede Herculem*"—or what would, perhaps, be more appropriate in the present connection, *ex ungue leonem*—a foot or a claw, or even a single petrified bone—the tibia or fibula of the hind leg, for instance, or the sacrum or one of the vertebræ—suffices to enable an expert to reconstruct the whole skeleton; nay, a mere footprint on the soft clay, hardened by time and preserved in the deep alantosaur or permian beds, is sometimes enough to reveal to

¹The great interest in visiting these remains arises from the fact that it brings us actually face to face with the representatives of a period in the earth's history far anterior to the existence of man, and wholly unlike anything of which we have any experience.

the wondering eye of the discoverer the gigantic form of the mammoth or the megatherium, the mastodon or the ichthyosaurus, which, thousands of ages before man was made, lived and sported and produced their young amid scenes of unwonted loveliness, and surrounded by a grandeur of vegetation and a magnificence of growth never contemplated by human eye, and the bare existence of which is only certified by the record stored up and preserved in the rocks and other deposits.

For thousands of years, possibly for tens or hundreds of thousands of years, this world was made over as the home and dwelling place of unconscious and unreasoning creatures.

Faith as well as science informs us that irrational animals were made before man. All the great geologists teach that man is the last in the series of living creatures to enter upon the stage of this world. It was only "at long last," when the fulness of time was come, and the world had developed into a habitation fit and suitable for a more highly gifted being, that God resolved, in the exercise of his omnipotence, to fashion a creature who should not only enjoy life, and feeling, and the power of growth and development like the beasts and birds, but far other and greater capacities as well.

This was an entirely new class of animal—a true animal indeed, but a *rational* animal; the first of a race of beings who should be able to take an appreciative interest in the works of His hands, and to love and admire them all. God made Adam, and gave him a companion, Eve, formed and endowed like himself with the priceless gifts of knowledge, and understanding, and free-will, and with the power both of forming and expressing his thoughts, and the faculty of communicating to others his innermost feelings and sentiments. They and their descendants were to rule over the earth by virtue of their superior knowledge, and to subdue it, and “to have dominion over the fishes of the sea, and the fowls of the air, and the beasts, and the whole earth, and every creeping creature that moveth upon the earth” (Gen. i. 26). Every creature around them, without exception, was to acknowledge their authority and obey their will.

We must pause here for a moment to remark that, so far as *the fact* of man’s arrival on the earth is concerned (and setting aside all questions concerning the *means* by which he was introduced), science and faith are in the most complete accord. Geology, no less than Scripture, points to a time when there was no life of

any kind whatsoever upon the earth ; and the most advanced scientists, no less than the most unyielding theologians, declare with equal emphasis that among living beings man was the last to appear. Almost all the remains of human beings have been found in the quaternary strata, and none below the tertiary. In fact, there are no *certain* traces of man even in the tertiary strata. The fact that a vast number of fossils of extinct animals and living creatures have been discovered in the various strata below those in which the relics of man are found tends to show, beyond all reasonable doubt, and altogether apart from revelation, that irrational animals of various kinds and species lived before any human foot had trodden the virginal earth. Every scientific man, every learned geologist, be he Atheist, Agnostic, or Christian, is constrained by the very science he professes to believe that there was once a period, however remote, when no man breathed throughout the realms of earth. He must also admit—not alone on religious grounds, please to observe, but on strictly scientific grounds—that further back still a more remote period must be admitted in which no life of any kind, whether of bird or of beast, of reptile or fish, existed on earth—a period, in fact, in which the earth could not have supported

life for one instant. I refer especially to the period preceding the formation of the lowest solid rocks, when, as Prof. C. H. Hitchcock¹ affirms, "the whole globe was in a state of igneous fusion". It is perfectly clear that no life could have existed on the earth when its temperature throughout was very much higher than, say, that of molten iron or brass. "Even if we adopt Sir W. Thomson's theory," writes Professor Huxley, "that life on this planet may have been derived from life on some other, the difficulty of accounting for its origination is as great as ever. For the nebular theory, which is a part of the hypothesis of Evolution, asserts that *all* worlds were once in the gaseous state."

How then, we may ask, did life commence? What produced life? What gave origin to grass and trees and endowed them with power of growth and expansion? Who formed the animals and endowed them with the power of feeling, instinct, and locomotion? What power first introduced man into this world, where once he was not, and bestowed upon him the faculties of reason, conscience, and free-will? *We* reply, God. We make answer that God alone gave, and that God alone could give.

¹ *Elementary Geology*, p. 104.

The scientific Agnostic, on the contrary, questions his sciences ; and all they can reply is : " We don't know ". That man once had no existence on earth they acknowledge to be certain. That he now has existence on earth is equally certain ; but how he was first introduced into this terrestrial world they cannot say.

Scientific men make the most valiant attempts to interpret and unravel each successive step in the formation of the earth ; but here, at least, they are bound to acknowledge themselves baffled. Without pausing to refer to minor difficulties, we may remark that there are four great transitions, four deep yawning chasms which, with all their cleverness and ingenuity, scientists cannot bridge over.

(1) The first is the passage from nothing to something. Yet this passage must be bridged over ; for, though we may transport ourselves in thought to a time when the earth was but a ball of vapour, or even the finest and most subtile gas-cloud, yet we have still to ask : How and whence came the vapour, and what gave origin to the gas-cloud ? The mystery still remains insoluble, unless a Creator and Supreme Fashioner be admitted. But, passing by this initial difficulty—a stumbling-block to atheistical

science—we come to three other impassable gulfs :—

(2) The gulf between the inorganic and the organic ;

(3) The gulf between the organic and the sensitive ;

(4) The gulf between the organic and the sensitive, on the one side, and the intellectual and the reasonable, on the other.

Even setting aside for the moment all questions of religion and revelation, we have no choice but to acknowledge the fact to which geology itself testifies that the inorganic preceded the organic ; that the organic preceded the sensitive, and that the sensitive preceded the rational—the rational coming last in the series. That is to say, Science itself compels us to admit that there was, after the bulk of the earth had been formed, a FIRST plant, a FIRST animal, and a FIRST man. But how came the first plant? Every experiment (and an innumerable quantity has been made) tends to make it more and more incontestably certain that, in the order of nature, a plant or tree cannot arise except from the seed or germ or bud of a pre-existing plant. This is regarded now as quite a demonstrated fact. An immense number of most careful experiments has been made, even

in recent years, with a view of testing this truth. Again and again men have laboured to produce life from non-life; but no success has ever crowned their efforts. Nay, they have been forced to accept as an axiomatic truth the old and time-honoured dictum, "*Omne vivum ab ovo*". Science is incompetent to deal with the difficulty. But one answer remains, and that answer stands inscribed on the pages of a notable volume written under the inspiration of the Holy Spirit many thousands of years ago, *viz.* : "*God said : Let the earth bring forth the green herb, and such as may seed, and the fruit-tree yielding fruit after its kind,*" etc. (Gen. i. 11.)

So again, in the ascent from the vegetative, to the animal world, a similar difficulty meets us. Of course, we have evidence in abundance all around us in support of the fact that one animal may be produced by another of its own kind. We see that a bird will produce a bird, and an insect an insect. But no one can explain scientifically, nor even so much as imagine, how the *first* bird or the *first* insect came into being. "*Ce n'est que le premier pas qui coûte.*"

Science informs us that the earth was once a ball of fire. It then goes on to say, that after it had cooled—a process extending, if we may trust Helmholtz, over a hundred and

fifty millions of years—it was covered with a luxurious vegetation, though it is very careful to give us no clue as to *how* this vegetation was produced.¹ Science further tells us that there were no animals until after the hills and valleys had become green with plants and herbs. And that is certainly reasonable enough, for in the absence of all seeds and of all green food neither bird nor beast could have survived a week.

Hence, science and common sense, as well as faith, represent to us an earth beauteous with the number and variety of its grasses, plants and shrubs, but at one period without a bird or a beast, a butterfly or a bee. We might (if we can imagine ourselves living at so remote

¹ Take, for instance, the carboniferous period. According to the reading of the records, it was a time of great forests and jungles, and of magnificent foliage, but of few or inconspicuous flowers; of acrogens and gymnosperms, such as tree-ferns, club-mosses, coniferæ, and taxaceæ, with no angiosperms; of marsh-loving insects, myriapods, and scorpions, as well as crustaceans and worms, representatives of all the classes of articulates, but not the higher insects that live among the flowers; of the last of the trilobites, and the passing climax of the brachiopods and crinoids; of ganoids and sharks; but no teliosts or osseous fishes, the kinds that make up the greater part of the modern tribes; of amphibians and some inferior species of true reptiles, but no birds or mammals; and therefore there was no music in the groves, save that of insect life and the croaking batrachian.—See Dana's *Manual*.

a period) have wandered through the forests and lost ourselves in the dense jungles ; but we should never have encountered the life and motion with which we are now so familiar. No birds sang among the tangled branches ; no mischievous squirrels gnawed the clustering nuts ; no bees hummed and buzzed amid the wild ferns and creeping lycopods ; no gorgeously painted butterfly opened its mealy wings to the subdued sunlight ; no " shard-borne beetle, with its drowsy hum, rung out night's yawning peal," as Shakespeare would put it. No ; only the shadows flitted to and fro, only the rain-drops pattered. There was a period when on the land there was no life but plant-life, and when no sentient being existed in wood or fell.

So says science. But later, science goes on to inform us, animal life appeared. Yes, " appeared " ! What are we to understand by that ambiguous expression, " appeared " ? Who introduced animal life where previously there was none ? Whence came the lion and the leopard, the dog and the deer, the mole and the mouse, and all the myraid of other animals ? Whence ? Science, in the person of its irreligious votaries, is puzzled ; Science is troubled ; Science hangs down its head and cannot offer any answer that will satisfy any reasonable man ; it can suggest

no explanation which is anything better than a mere subterfuge. The Agnostic dare not confess that God created the beasts, and all that lives and moves in sea and earth and air, because that would oblige him to acknowledge the existence of a Supreme and Infinite Being who rules over all things, and he would rather believe any nonsense than confess God.

What, then, do such men say? They would have us accept any absurd and grotesque hypothesis rather than allow the existence of God. They will assure us that little by little animals were brought forth by a slow process of development; and that, after many convulsions and changes of fortune, the various beasts were evolved from—well, *since nothing but earth and vegetation then existed*—say from a rock or a tree. We thus see to what shifts even the most learned are reduced, and to what absurdities they are driven, so soon as they deny and denounce the doctrine of an all-wise and all-powerful Creator.

Yet these, alas! are the men who speak scornfully and with curled lip about our credulity and superstition. That life appeared where previously there was no life, and that animals existed where previously there were none, are hard-and-fast facts which do not admit of any

serious controversy. Yet sooner than admit that beasts were created by the omnipotent hand of God, they will try and persuade us that they were developed from plants or vegetables ; which, in their turn, were evolved from mud or protoplasm, and I know not what besides. Who can bring his reason to accept such an astounding statement ? As well persuade us that the prehistoric trees produced legs of roast mutton and hot-buttered French rolls.

No, the more we inquire into the ways and teaching of science, and the better acquainted we become with the earth and its history, the more the conviction is forced upon our minds that there is above nature, an Infinite Force ruling nature ; and above the life begun in time, an Eternal Life which had no beginning ; and above finite intellect and will, an infinite Intellect and an uncreated Will. An Intellect, indeed, which made all things, maintains all things, and rules, controls, and moulds all things according to its own supreme pleasure. Or, to express the same thoughts in another way, that there is in short a God, all-mighty and all-wise, who reigns over the universe, poises the earth on three fingers, and holds the oceans in the hollow of his hands ; to whom be honour and glory and empire for everlasting ages, Amen.

Even without a direct revelation, even apart from the positive teaching of the Church, we are thus constrained to acknowledge the existence of God. If we deny the existence of God, we must deny the existence of the very earth, and even our own existence. Every object in the great world around us, every creature in the planet in which we dwell, proclaims His sovereignty and announces His presence. "Through every star, through every blade of grass, God is made visible," says Carlyle, "if we will but open our minds and eyes." It is to this great fact that the Scriptures refer when they remind us that "by the greatness of the beauty of the creature, the Creator of them may be seen, so as to be known thereby" (Wisd. xiii. 5); "*Præstans est opus, igitur præstantior ipse opifex*," as St. Chrysostom remarks. It is for this reason that the heathens who deny God are, as St. Paul teaches, "inexcusable," since "by the visible things that surround us may clearly be seen the invisible things" (Rom. i. 20); and because God manifests Himself in the works of His hands.¹ "The

¹ How tersely St. Thomas puts the whole case for us when he says: "*Sicut enim ars manifestatur per artificis opera, ita et Dei sapientia manifestatur per creaturas*" (St. Thomas Aquinas).

wonderful harmony of all things," exclaims the renowned St. Chrysostom, "speaks louder on this subject than the loudest trumpet." If, therefore, men refuse to recognise God in His works, and fail to trace His power and glory in the heavens, it is not because it is not clearly manifested there, but too often because they wilfully close their eyes and do not wish to see—because "they love darkness better than light".

In sooth, as the royal Psalmist reminds us in words of inspired wisdom, "the heavens show forth the glory of God, and the firmament declareth the work of His hands. Day to day uttereth speech, and night to night showeth knowledge". (Psalm xviii. 1, 2). Indeed, there is not the smallest insect that creeps along the ground, nor the meanest floweret that blows, nor the slenderest rootlet or sucker that draws its nutriment from the soil, but speaks with irresistible eloquence of the wisdom and power of its Maker. Take the most insignificant little weed. Consider it well. We undertake to say, that the more carefully and thoroughly you study its marvellous construction and formation the more will your wonder and admiration grow. The extreme delicacy of its graceful form; the exquisite beauty of its

colouring ; the fine, thread-like tracery of its leaves ; the astounding finish and perfection of its minutest detail ; its processes of growth and expansion ; its almost human activity in drawing from the earth the moisture and nourishment it needs ; its wondrous dexterity in clinging and twisting its slender roots to the stones and rocks for support ; and, more wondrous than all, its power to produce others like to itself, and to propagate and multiply almost indefinitely—all this, and much more which it would be tedious to develop, tells us of a wisdom, and a power, and an adaptation of means to ends, which exceed the power of words to express and almost of mind to conceive.

How certainly must this thought have been present in the mind of the late poet-laureate when he penned those oft-repeated lines, addressed to a tiny flower pushing its delicate head out of the masonry—

“ . . . in the crannied wall.
 I pluck you out of the crannies ;
 I hold you here, root and all, in my hand,
 Little flower : but if I could understand
 What you are, root and all, and all in all,
 I should know what God and man is.”

Can we conceive a watch, or a music-box, or a steam-engine, or a man-of-war, or any other

complicated piece of mechanism existing without an intelligent workman or designer to plan it, and construct it, and fit the various parts together? Evidently not, and yet such things are simple in the extreme compared with the myriad objects existing in the vegetable and animal kingdoms. If such a thing as a hundred-guinea chronometer cannot begin to be without an intelligent artificer, how much less can the world, and all the wonders that fill the world, begin to be without an intelligent Artificer. Take one of the most insignificant among the myriads of moving objects—say, for instance, a butterfly. A butterfly, even of the commonest species, *e.g.*, the large white cabbage butterfly (*Pontia brassicæ*), is immeasurably more wonderful and complicated an object than a steam-engine, or a man-of-war, or a weaving-machine.

Call to mind the history of a butterfly from the egg to the perfectly formed insect. Consider the changes involved in passing from the condition of the fecundated ovum to that of a crawling, growing, devouring caterpillar; and from the caterpillar state to that of the wholly unlike chrysalis; and from the chrysalis again to the gay, giddy, gorgeously painted fly, completely equipped with eyes, wings, antennæ,

proboscis, muscles, and limbs, and digestive organs, and power of sensation and locomotion. The caterpillar feeds upon hard substances, while the butterfly lives upon vegetable juices, but whether as larva or as fully developed insect, it feeds; and to feed means to digest and to assimilate; and to digest and to assimilate means to possess and to use organs and properties immeasurably more marvellous and beautiful than any to be found in any machine or contrivance made by man.

Consider that every vital act in any creature is performed at the expense of the structure by which the act is produced. Whenever a muscle contracts—as when a wing is moved or a leg is stretched—a portion of its substance is destroyed. And this holds good of every tissue and of every function. Hence the constant loss of substance caused by the exercise of vital acts must be constantly repaired, if the organism is to maintain its integrity. This can be effected only by the formation of fresh tissue to take the place of that which has been destroyed. “Every tissue possesses the power of replacing the particles destroyed by its functional activity, by manufacturing, so to speak, particles equal in number and similar

in character to those which have died.”¹ Hence, if we may so express it, a bird, a beast, or an insect not merely uses marvellous organs, and fulfils complicated functions, but it maintains itself and its organs in repair.

When we look at a hundred-guinea chronometer and examine its works, and see how beautifully all its parts fit into one another, and with what accuracy and ease it goes, etc., we are forced to the conclusion that an intelligent person made it. But if (*ex hypothesi*) we were to make the further discovery that the said watch could repair itself; and that when a wheel got worn, or a rivet got loose, or a spring became rusty, it could *of itself* remedy the defect and repair the injury, we would feel even yet more fully persuaded of the gigantic and almost superhuman wisdom and power that had contrived it and arranged it. Yet this is just what happens in the living objects around. If on pursuing our examination still further we were to make the discovery that, in addition to the power of repairing itself, it had also the still more remarkable power of reproduction—the power of making, without any human aid, other watches like to itself—our surprise and

¹ *Elements of Biology*, pp. 85-6.

admiration at the wisdom of the artificer would know no bounds. Imagine what our surprise would be on opening our watch to find it some fine day, if we were to discover a row of ten or twelve tiny watches within the cover, arranged like peas in a pod ; each a little miniature of its parent and on the point of being hatched ! Yet this power of producing other beings like to itself is just what we actually find in birds, and beasts, and fishes, and insects. They not only move, see, digest, and repair the wear and tear and loss of their tissues ; but they form other beings exactly like to themselves, complete and perfect internally and externally. If the sight of a watch, or a phonograph, or a sewing-machine at once impresses us with an unmistakable sense of the possession of mind and intelligence in the inventor and manufacturer, how infinitely more impressed we should be at the sight of a fly buzzing on the window-pane or a cricket chirping on the hearth. If watches and clocks, sewing-machines and music-boxes, steam-engines and spinning-mills are not made by accident, but by design, and do not start into existence without an inventor and an artificer ; if they suppose an intelligence to conceive them in the first instance, and, in the second place, an artist or rational craftsman to

put the conception into operation ; surely reason and common sense require that similar requisites are infinitely more needed for the vastly more intricate and beautiful machinery of the living body, whether it be of bird or of beast, of the most perfect man or even of the most rudimentary animalcule !

MAGNITUDE AND MIND.

Il mondo è un bel libro, ma poco serve a chi non lo sa leggere.

—GOLDONI.

HOWEVER much men may differ from one another in height or bulk, this difference seldom enters into our calculations of their character or disposition. Virtue and vice, love and hatred, learning and ignorance, are rightly considered to be independent of length of body or breadth of chest. Even those who take the size of the brain as a measure of intelligence, concern themselves, not with its absolute, but only with its relative size. And though it may certainly be objected that Falstaff sought to excuse his extreme frailty on the ground of his greater mass of flesh—"Thou seest I have more flesh than another man, and therefore more frailty"—yet we must bear in mind that Sir John, though always facetious, was not always truthful.

The reason, however, that so little attention has been paid to the influence of size upon the thoughts and impressions of the human mind, is that differences of size, whether among in-

dividuals in any one epoch, or in the whole race at different epochs, are far too insignificant to arrest observation, or to lead to any noticeable effect, and none stay to consider the inappreciable. Yet I strongly suspect that there are consequences flowing from differences of stature, which few suspect. I speak, of course, not merely of obvious physical consequences, such as the advantages arising from greater height, or broader shoulders, in hand to hand encounters, or in feats of swordsmanship, etc., but of the psychical effects—the influence on the mind, and on the complexion of its ideas. Take, for instance, the feelings of admiration, awe, and wonder that enthrall a man's soul at the contemplation of some vast range of snow-capped mountains, bursting on him suddenly and for the first time! He is awed into silence: lost in reverie; held spell-bound and entranced by the sublimity and magnificence of the scene! Heights towering above heights; inaccessible rocky fastnesses; yawning gulfs, open chasms, deep ravines, all help to breed terror in his heart, and wonder too, since all seem shrouded in cloud and mystery.

Now, observe, what affects his mind so powerfully is not the shape, nor the arrange-

ment, nor the natural features of the scene, though these are of course not without a certain value. The one essential cause of his impressions is the gigantic scale upon which the whole picture is drawn. Its vastness is the *conditio sine qua non*—the one only essential condition.

Yes! its vastness. But vast as compared with what? Well! vast as compared with what a man is accustomed to; but especially vast as compared with his own insignificant bulk. Since there is no absolute measure, man generally makes himself the measure of all else. It is the immense disproportion therefore between himself and any famed mountain we may mention, that endows the mountain with its peculiar awe-inspiring property. Consequently, except in so far as custom tends by familiarity to destroy the effect, the greater the disproportion, the greater will be the influence. So that—putting aside the equalising effect of other conditions—the smaller a man is, the greater power hills and mountains, and the grander side of nature, ought to have to terrify and overawe him: and, *ceteris paribus*, a man six foot six in his stockings would not yield so readily to the influence of sublime emotions, at the sight of the foaming Niagara Falls, or of the gigantic Chimborazo, as a man

who only just measures five feet five! This strange conclusion may seem at first glance to be as false as it is curious, but that is owing partly to our inability to make the differences of height in men sufficiently marked to produce a difference of effect great enough to be at once cognisable; and partly owing to the impossibility of ever comparing with any amount of accuracy the precise measure of intensity of any mental activity in different men.¹

If, however, we suppose an extreme case (and to bring out microscopic variations we must magnify them), the justice of our contention will be rendered at once apparent. Reduce a man till he be no bigger than the

¹ Many of our readers will probably have shared with us the strange sensation of bewilderment when revisiting the scenes of their childhood after long years of absence. The houses and gardens, rooms and corridors of our infancy seem to have miserably shrunk during our many years of absence. We imagine ourselves victims of delusion, as we look with a mystified air at the "broad" oak stairs up which we used to toil one step at a time, and dragging one leg after another, and at the "spacious" hall around which we ran our mimic races, and we cannot but feel that they have all shrivelled up into very ordinary dimensions indeed. Such has certainly been our experience. But what is the cause? It would seem to be that while we were developing from infancy into manhood, old Time had been somehow or another surreptitiously meddling with our measuring tape, so that the standard of comparison is no longer the same. This may serve as an illustration of our argument.

first joint of your little finger, and it is obvious that a few small hillocks shaped and piled upon each other *à la Suisse* would produce in him all the startling effects of the most gorgeous mountain scenery.

All dimensions are to be considered only relatively. Nothing is *absolutely* great or small, long or short, deep or shallow, broad or narrow. What is indefinitely great in one relation is quite as indefinitely small in another. The conceptions which are formed in our minds of distance, space, magnitude, and so forth are produced merely by the different relations in which we stand to the various objects of the visible creation around us. And so far as they affect our mind they possess no absolute objective value. This is so true, that were the whole sum of visible things that come within the range of our senses (our own bodies of course likewise included) utterly changed in magnitude, either in the direction of increase or decrease—it matters not which—it would affect us not at all, provided that the same proportions were in all particulars rigorously preserved. Assume man as the unit : in place of six feet, let him be six leagues in height ; let his limbs and organs be in due proportion. Fashion the earth and the whole sidereal uni-

verse to match. Only be careful to make all exactly to scale, and how would our condition differ from what it is now? In what possible manner should we be affected?

Indeed the question might well be raised whether man would even perceive the change were it brought about by an omnipotent power to-morrow. Let us suppose that by some Divine decree every object were to be reduced in size. Suppose the darkness of night to lie thick upon the earth, and ourselves to be wrapped in deepest slumber, and that while we slept God were, in the exercise of His omnipotence, suddenly to reduce the scale of creation throughout the whole material world; so that, for instance, the Continent of Europe might lie comfortably within the saucer of an ordinary tea-cup. Observe, this only involves a change in a single condition, *i.e.*, in dimension. No element of change is anywhere introduced but one, and that is the element of size.

The question is: Should we, on awaking with the tiny sun shining upon us, detect any difference? Should we note any change? Should we be even conscious of anything unusual having taken place during our dreams? Should we believe the testimony of others, who, we may suppose, were witnesses of it? Surely

no. How could they prove it? What test could they offer us? None.

Nor would the extent to which the reduction was made affect the question at all. The mind of a philosopher directed by reason, and not enslaved by the imagination, might easily conceive the whole panoply of heaven, with its suns and innumerable stars, its blazing comets and gorgeous meteors, all accurately poised and carefully hung in their true relative positions, as existing and moving, each in its proper orbit, within the narrow precincts of an empty nutshell. There, as an almost invisible point, would be our own little earth, spinning on its axis, with its own little moon revolving around it as now. Every planet would follow its accustomed path. The sun itself would still produce the ordinary phenomena of alternate day and night upon the earth, and the seasons, under its influence, would succeed each other in due course. The beauty, the variety, the whole complexus of form and colouring and motion would not be touched or trifled with. All would be as before, save the size. To imagine this may be difficult, but we can assuredly conceive it. It suggests no metaphysical impossibility, it involves no contradiction. Nor would any one, believing in God, hesitate for a moment to

ascribe to Him the full power of performing such a miracle, or doubt but that one word from Him would be enough to reduce the whole creation to such a degree that it might lie easily within the hollow shell of a hazel nut ; and this without necessarily introducing any change in our lives, habits or thoughts ! We are not, however, now concerned with the power of God, but merely with some of the laws affecting the relation between mind and matter.

With the universe on such a scale, the earth, if in proportion, would be reduced to a mere speck, far too small for us in our present state to picture. As for man himself, his image would make no appreciable impression on the retina of any eye such as ours now are, and he might be described as a species of being, a milliard of which could stand on a pin's head. Imagine the size of his top-hat, gloves and boots, or the nick-nacks on the chimney-piece in a lady's *boudoir* ! Yet since nothing whatever in him or around him would have undergone any alteration except in so far as actual size is concerned, he would remain in all respects *in statu quo*, except in such qualities or attributes as depend on, or are in some way at least affected by, absolute magnitude. But since there is

hardly any impression, feeling, or thought (if any) stirred up within us by the external or internal world that is dependent upon the absolute magnitude of things, but all depends upon proportion—which in the supposition is here preserved—there would be no change in him at all. We might compare it to the treatment of an equation in algebra, provided both terms of the equation be similarly dealt with, *e.g.*, divided or multiplied by the same number, no difference can result in the answer; or to take another illustration: as ten pounds will exactly counterpoise ten pounds and weigh down nine in *any* and *every* properly constructed balance, whether the balance be made as large as a railway bridge or as small as a millet-seed, so if man and the external world be represented by the two arms of a balance, we may treat them both in the same manner without altering their relations. These comparisons must not of course be stretched too far.

Man's life and mode of thought would in no way be altered by altering the absolute dimensions of the world, for the simple reason that his thoughts, ideas, hopes, aspirations, and desires are wholly independent of magnitude. Even in the supposition that he himself and his

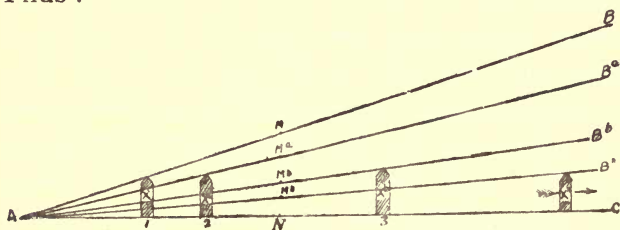
habitation have been reduced to a mere point, there is no reason that any one can bring forward—or, if there be, it would be instructive and certainly interesting to hear what it is—I will not say to prove, but even to give a look of probability to the view that either his affections, desires, hopes, or fears would undergo any change. He would possess the same spirit of enterprise, the same love of adventure, the same thirst for discovery, and, what is more singular perhaps, the same opportunities of gratifying all these feelings: an expedition to the North Pole, or a voyage of discovery through Africa, would afford him as much excitement, interest, and wonder as now. How, indeed, could it be otherwise? His soul, immaterial and unextended and simple in its nature, would suffer no shade of alteration either in itself or in its attributes and powers. Ambition, patriotism, religious enthusiasm would make his heart beat quicker and his blood flow faster than as now. We may just as easily fancy him taking his stand upon some rocky eminence stretching its ragged height into the clouds, and gazing out over the vast expanse of waters foaming and fretting in earth's tiny sea. We may just as easily fancy the poet's fire kindling in his breast, at the

sight, until, like another Byron, he would seek to relieve himself in similar words of passionate strength and feeling :

Roll on thou dark and deep blue Ocean—roll !
Ten thousand fleets sweep over thee in vain ;
Man marks the earth with ruin—his control
Stops with thy shore.

Or take another instance. Who has not read *My Novel*, by Lord Lytton, and laughed over the amusing incident of the Parish Stocks ? Here we have Parson Dale, Mr. Hazeldean the squire, the Parish Stocks, through whose “four socketless eyes, neighboured by the nettle, peered the thistle,” and last, but not least, the donkey of an itinerant tinker. Take that little episode as an illustration, and say what in the whole scene so quaintly told, so full of humour and genuine fun, would have had to have been sacrificed, if the whole picture had been reduced in size. Would the rippling under-flow of merriment accompanying Parson Dale’s remarks and remonstrances, or the Squire’s irritable opposition, or his final discomfiture as he catches “his foot in a rope and goes head over heels among the thistles,” be in any way lessened were the whole to have taken place in our imaginary earth, and consequently on a minute microscopic scale ? Evidently not.

It may not be uninteresting here to make a little digression, in order to show by a very simple diagram how an object may be indefinitely reduced in size and yet never wholly disappear. A very simple contrivance has occurred to me which will make the truth clear to any one even wholly ignorant of mathematics. Thus :



Let A B and A C be two straight lines united at A and extending indefinitely in the direction A B and A C.

Let the line A B be prevented from closing upon the line A C by the bar X.

Let the line A B, move freely about the point A, as on a pivot.

Move the bar X away from A till it stands at 2.

The angle formed by the two indefinite straight lines is less now than when it stood at 1, and the line A B^a is brought nearer to the line A C. Any line formed by connecting two points in the opposite sides, *e.g.*, M and N, will be also proportionately reduced.

Remove the bar still further till it stand at 3. The angle $B^b A C$ becomes less still, and the side $A B^b$ lies yet closer upon $A C$, and the line $M^b N$ is reduced yet further than before.

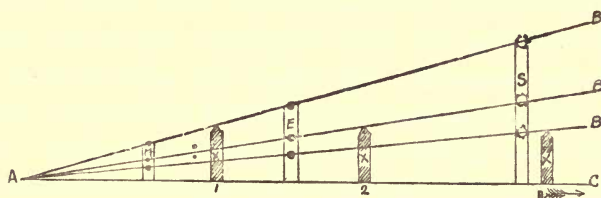
Continue the process till the bar X is removed millions or billions or trillions or quadrillions of miles from the point A . At every single inch, the angle $B^a A C$ will grow less, and the sides $A B^a$ and $A C$ will draw nearer together; yet they will never unite, since (*ex hypothesi*) they are always separated by the bar X . And though the point M^a will always be approaching the point N , they will never meet, and the line connecting them, though always diminishing in length, will never wholly disappear. For, the angle $B^a A C$ can never be reduced to zero, since the two straight lines together with the bar X must ever form a triangle of which these lines are the sides, and the bar the base. Thus one may go on indefinitely lessening the size of the angle $B^a A C$, and yet an angle will always remain.

Let us now apply this to the universe, and we shall at once see how it might conceivably be reduced to any scale and yet preserve its ordinary proportions.

To simplify matters and to bring the theorem

more thoroughly within the range of our understanding, we will confine our consideration to three representative objects only ; (1) the Sun, (2) the Earth, (3) Man.

Let us draw two straight lines united as before in the point A, and extending to an indefinite distance in the direction of A B and A C.



Represent Man by the shortest line M ; the Earth by the medium line E ; and the Sun by the greatest line S.

As the bar X is removed further and further in the direction of C, the closer and closer do the sides A B and A C tend to come together ; and consequently the smaller and smaller become the lines M and E and S. Still the proportions are always preserved. For, however far we may remove in thought the bar X, we shall always have a complete and perfect triangle formed by the bar X as base, and the lines A B and A C as sides.

And since the line M will always be nearer to the apex of the triangle than the line E,

it will always be proportionately smaller ; and so the line S being always further from the apex of the triangle, it will ever continue proportionately larger than E. Thus man, and the earth, and the sun, as represented by these three lines, might be reduced to any given scale, and yet would retain their ordinary relations to each other, and so with every other material object in the entire universe. So that we may conceive such an apparent impossibility as that of the universe being steadily and continuously reduced day by day for ever and ever, and yet never coming to an end, or changing the relations of its parts.

But as long as the same relations subsist, our sensible and conscious condition will not change. So little indeed does absolute size affect life, and life's deepest interests, that it becomes a question, as has already been remarked, not whether one would continue to think and to act and to reason under such circumstances, as at present, but rather whether one would be able to detect the change were such a change introduced.

Our imagination might reply at once, "Yes!" but reason will be slow to pronounce upon it. How indeed should we know? By what signs should we detect it? From what quarter would

the information arise? We judge only by relations. The relations are the same. The size of things is nothing more than the proportion which exists among them, but the proportions (under the supposition) are wholly untouched : all rests precisely as before.

If the earth is reduced, so is the measure with which we determine its circumference, thickness, etc., reduced in a like proportion. If our oceans and lakes, our rivers and canals, have shrunk to mere invisible specks or streaks so the boats, steamships, and sailing craft with which we navigate them have become proportionately smaller. If the entire globe is but a fraction of a line in diameter, then Europe forms but a fraction of that fraction, and England is still but a small portion of Europe ; while a single man bears to England precisely the same relation as now, and his head and lungs, etc., the same relation to his whole body, and so on, away and away, *ad infinitum*.

If old Farmer Jones' fields are smaller than before, he can get over them no sooner, since his footsteps bear the same ratio to them as formerly. The corn will occupy just an equivalent space in the ground, and the poppies and wild dandelion will still nestle about their stems. All that moves, all that grows, all that breathes,

feels, and acts, are, according to the hypothesis, in absolutely the same *relative* condition as before. The journey from England to the Antipodes will consequently occupy as much time, and fatigue, and rocking about, in the diminutive world as in this, for the screws or paddle-wheels, as well as the steamers themselves, will be reduced to the same scale as the ocean itself. The heavings and swellings, the surges and waves, will exercise a corresponding influence on the vessels, and the motion of the vessels will produce the same unpleasant consequences on the passengers as heretofore. The same dangers would have to be encountered, the same risks then run as now. In spite of all mankind being within the millionth part of a line of one another, still the relative distance between a friend on one side of this tiny earth, and another on the opposite, would be felt to be just as great as that which now separates a man in London from another in Sydney. He would be practically as completely cut off from all direct communication with him, and as far asunder as at present, neither more nor less.

Were the sudden shrinking of the entire universe to the size of a pea to arouse our attention so that we should recognise it, it

would necessarily be by making us conscious of some change either within our own being or in the world without. But (*ex hypothesi*) no change has taken place except in the absolute dimensions of things, or in what is dependent on absolute dimensions. But it is well known that we do not perceive, nor can we take cognisance of absolute dimensions. All our judgments of magnitude are based on comparisons : we hold certain relations to everything around us : we are wont to make ourselves the standard of comparison : we take "a foot " or "an inch " as the unit of our scale, and according to that scale all things are measured and described. If we stand in a Swiss valley, and feel awed and overpowered at the sight of the great perpendicular cliffs, and mountain tops crowned with eternal snows, it is not in any degree whatever on account of their mere actual height and vastness, but by reason of their height, etc., *as contrasted with ourselves*. To convince ourselves of this, we have but to suppose man grown to such colossal proportions as to be able to crunch the entire mountain range as a biscuit beneath his feet, and the very idea of its overawing or inspiring him with sentiments of the sublime becomes at once ridiculous. For the ratio in which one stands to the other—the beholder to the beheld

—is the real necessary condition of the feeling engendered. Suppose, on the other hand, the whole of Switzerland to be so far reduced as to fit easily on the object-glass of a microscope, it would then be quite enough to reduce man to the same scale in order to restore the relation between them, and therefore to re-awaken the feelings of admiration, wonder, awe, enthusiasm, which that relationship is calculated to inspire. To detect the absolute change we are supposing, by any consideration of external objects, would indeed be most difficult. Then would it be possible to detect any change within us? Evidently not! The soul, the spirit of man, is not itself subject, as material things are, to the laws of space : it possesses neither length, breadth, nor thickness ; there is as little sense in speaking of the size of the soul as there would be of the shape of an act of love, or of the weight of the feeling of impatience. It is hard, therefore, to see how any of the powers or faculties of the soul could be affected in any appreciable degree by the greater or less absolute extension of the body which it informs, or the actual mass of matter it is called upon to animate. Its action, when occupied with matter, is on or through the various organs and articulations of the body, and especially the brain and nervous

system, and if all these continue to hold the same relations among themselves, the absolute size of the whole would seem to be a matter of supreme indifference ; while as to reason, reflection, memory, love, fear, hate, and the more spiritual functions of the soul, any change in the organism would signify, if possible, even still less.

Since "large" and "small" are in no sense absolute terms, but expressions of *mere comparison*, it follows that to speak of our universe as "the vast boundless universe" is to speak of it merely as referred to us, and not as it is in itself. To other possible creatures it may stand in the relation of a minute particle of dust, indistinguishable amid a myriad other vaster and more complicated systems. It may present no more sensible object of vision to them than an invisible animalcule does to man. To such possible beings our universe would be the most contemptible of objects ; yet we, as much impressed as ever, would fall into ecstasies of delight at the very immensity and limitlessness of that which those superior beings would utterly disregard as too tiny to engage their attention.

Yet, who will say where the truth would lie ? Whose would be the correcter judgment,

theirs or ours? In reality both views would be equally accurate, each from its own standpoint. For the universe must be variously described according as it is variously related to different creatures, being in itself wholly indescribable in terms of magnitude.

These reflections seem to throw out wonderful indications of the infinite greatness of the Creator, and to prove how all creation must be before Him almost as though it were not. He is above all relations such as they exist in creatures, Himself alone the Absolute and the Infinite. All else is nothing. All things dwindle into insignificance when compared with Him; or rather no comparison is so much as possible.

To Him, no high, no low, no great, no small;
He fills, He bounds, connects, and equals all.¹

Or, as a more modern poet sings:—

God fills all space; to Him, who made them all,
The smallest things are great, the greatest small.²

Hence, did He create but one object, it could be neither great nor small, neither strong nor weak, since all such terms presuppose a comparison, and where one object alone exists

¹ Pope.

² Rev. T. E. Bridgett, C.SS.R., *Merry England*, Feb., 1886.

comparison is not possible. No *creature* is *absolutely* great, powerful, wise or good. Suppose God to create a single being—say, for instance, a grain of sand. That, considered in itself, would be neither large nor small (abstraction made of the individual molecules of which it is composed, and which would of course possess a relationship with each other and with the whole). And here a strange consequence follows, not unworthy of observation. In order to make this object either large or small, a new and distinct act of creation would be imperatively demanded; in a word a second object *must* be called into being with which it could enter into relationship. Thus, if this first and solitary object, which we may designate A, is to be made immensely great or exceedingly minute, it will not be, as one might at first imagine, by altering A, which would never produce any such desired effect, but by creating a second object B. But what may strike some of our readers as still more astonishing is this, that if it be determined to make A exceedingly great, then A must still be left untouched and B must be created immeasurably smaller than A; and if on the contrary it is intended that A should be infinitesimally small, then the only thing to be done is to create B immeasurably

larger than A. And this because, supposing only A and B to exist, then A will be great or small only in its relation with B, since there is nothing else with which to compare it, in itself it being impossible that it should be great or small ; for, as it has already been observed, no creature can enter into relations of comparison with the Infinite Creator.

In consequence of the foregoing considerations, we are at once enabled to see how the entire creation, even as now existing, if viewed as a whole—as a unit—that is to say, if regarded as a single (however complicated) object, cannot be spoken of strictly as either vast or diminutive. The entire planetary system, of which our solar system is said to form but an insignificant fraction, when viewed as a single complicated organism, beyond which no extended being exists, would stand exactly in the position of the solitary object (*i.e.*, the grain of sand) we have spoken of in the foregoing paragraph. It would not be regarded by any unembodied intelligence either as immense or microscopic, except as viewed in its component parts. It would merely reflect the power, beauty, and wisdom of its Fashioner. But it would publish His praises, and speak of Him just as eloquently and as accurately, whatever

might be its absolute dimensions, much as a book would record exactly the same information whether printed in large or small type, provided only it were adapted to the eyesight of the reader. The various parts of the universe are of course related to each other and to the whole, but considered as one complicated creature it would be quite as accurate to describe it as exceedingly tiny as to describe it as exceedingly colossal.

Hence, though we marvel at the enormous size of the Alps and the Apennines, it is only when contrasting them with lesser mountains or with level surfaces. On the other hand, it is not the immensity but the minuteness of the ball of our earth that we muse over when contrasting it with the sun,¹ or even with Jupiter or Saturn. But when we embrace, as it were in one hand, the entire creation, can we call it vast and boundless, or small and circumscribed? If only we could rid ourselves of the irresistible inclination to make our own selves a measure, it would certainly be difficult to offer any reply. We contrast it with our own bulk, and we declare it to be all but infinite in magnitude. But in sober truth it is neither

¹The sun's *volume* is about 1,200,000 times greater than that of the earth.

great nor small. It is only when compared with some one or another of its small component parts that it may be considered vast.

If indeed we (an infinitesimally minute point ourselves) stand upon a single orb out of the myriads revolving through space, and gaze at the rest of the universe, it does indeed seem vast. But we must thank our own diminutive size for that impression, since on that alone it depends. Since the ratio between our bulk and the bulk of the universe is the measure of the vastness of the creation to human minds : but this ratio would remain the same however much the whole creation might be enlarged or dwarfed, were we also always drawn to scale.

It would make this chapter too long were we to attempt to draw out in detail the many other consequences that flow from the thoughts we have here hastily put together and presented to the indulgent reader. If anything has been said, however, to deepen the impression of the grandeur and majesty of God or to exalt Him more evidently above His works, we have been more than rewarded for our pains. Any reflection which can aid us in forming a more accurate estimate of the emptiness, insignificance, and absolute nothingness of all visible

things as contrasted with the invisible things which await us hereafter cannot be without its value. One's expectations of the future certainly increase with one's knowledge of the present, and the more thorough is one's acquaintance with the mysteries of this life, the higher and the brighter grow one's hopes of the possibilities of the next.

An anonymous critic who writes in *The Month* may or may not be right when he finds fault with the contents of this chapter. But his criticism would carry more weight had he understood and applied the hypothesis correctly, before attempting to demolish it. His words prove that he has neither understood it nor applied it correctly.

He asks, "What about Mass? Are we to suppose that the *number* of its atoms remains the same in each body after the change as before, or that it (*i.e.*, the number) too is proportionally diminished or increased?"

Did he apply my hypothesis accurately (and, after all, it is but a hypothesis) he would never speak of increasing or diminishing the NUMBER of anything, no, not even of atoms, but only of altering their size, if they be material, or their field of influence, if they be, as some affirm, but immaterial forces.

According to one theory, atoms are from $\frac{1}{10}$ millionth to $\frac{1}{100}$ millionth of a centimetre in diameter. In fact Lord Kelvin informs us that "if we imagine a globe of water about six inches in diameter, magnified to the size of the earth, and each atom magnified in the same proportion, the atoms in this case would be larger than small-shot, but smaller than foot-balls". Hence he, at all events, admits atoms to be extended. Good. Now, the NUMBER of atoms in each body, according to my theory, remains the same. It is only their size that is increased or diminished to scale. But my critic is in too great a hurry to spare time to understand what the theory postulates, and in his anxiety to overtake a flaw, runs clean off the lines, and gets smashed up. In the following observation we have another indication of how completely and hopelessly he misses the whole point. He writes: "Therefore it is, that, as astronomers tell us, the great planets, if inhabited by creatures with tissues at all *resembling our own*, must be the home of pigmies. A man of the organisation which lives on the earth would, if placed upon Jupiter, spread out under his own weight, as flat as a pancake. Of loose talk of this kind, concerning scientific problems, the modern mind is rightly impatient."

This is all very well, only it is much to be

feared that here the "loose talk" is on the side of my critic. Why he should think to confound me by referring to creatures "*with tissues like our own*" inhabiting the large planets, and to the disastrous consequences resulting, I am at a loss to imagine. My hypothesis in no way contemplates creatures "with tissues resembling our own". Were the earth increased to the size of Jupiter, my theory absolutely requires, not only that a man's height and breadth should be proportionally increased, but also the size (not the NUMBER) of *each and every one of the atoms and molecules* of which he is composed. And, I submit, that such increase would leave him with tissues not at all "resembling our own". Hence, his words are utterly beside the mark. They prove nothing, except that he has not grasped the very position which he is attacking. He is knocking very loudly; but at the wrong door! In practice there is, of course, no possibility of our increasing or diminishing the size of atoms or of molecules, so the effect of such changes must remain purely speculative. In any case it cannot be solved by such "loose talk" as my critic indulges in, nor by referring to either men or metals whose superficial dimensions are increased or diminished, while the atoms and the molecules, of which they are composed, are allowed to remain unchanged!

When our Professor tells us that "to multiply or to divide *both* sides of an equation by the same number does not alter the result," we shall be far from wise if we think to stultify and confound him by multiplying or dividing *one side only*, and then declaring his principle to be absurd. Yet, such is the position of this man in *The Month*.

The whole chapter, in the first instance, was composed merely as a sort of mental gymnastic exercise, and afterwards published, because it seemed that some persons might be interested in and entertained by the subject, which indeed has proved to be the case. For the rest, no harm is done, even if there be nothing in it. The whole subject is purely speculative and academical.

NOTE.—Now that the illustrious and Reverend T. E. Bridgett, C.S.S.R., the author of many valuable works, is dead, it may be well to rescue from oblivion the following interesting letter, with which he favoured me on first perusing the foregoing chapter.

"DEAR MGR. VAUGHAN,

"I have read your 'Magnitude and Mind,' and am delighted with it. I have often had the substance of your thought in my mind, but you have put it in so lively a way and drawn out the consequences so cleverly, that it comes quite fresh. Here is a little epigram I wrote many years ago :—

"*On a Metaphysician.*

"His years of life he spent in doubts sublime—
What is that entity which men call *Time*?

He travelled many a league from place to place,

To ask the learned :—Is there really *Space* ?
 At length time passed for him ; and all he got
 From God or man, was ; space enough to rot.'

"But that is not *à propos* of your article. Dean Swift's epigram about the fleas is more *ad rem*.

"Great fleas have little fleas,
 To tease 'em and to bite 'em.
 And little fleas have lesser fleas
 And so *ad infinitum*.'

"Is not Gulliver also founded on your thought that size is altogether relative ; so that the giant in one land is the pigmy in the other.

"I wish [he continues in his own playful way] that I could persuade myself that my size has nothing absolute. But I fear my bones have not grown to scale with increase of flesh.

"I always greatly admired Dante's wisdom, when in his images of Paradise he imagines God as a *point* of light. St. Augustine says the Manichæans thought of God only as a vast expanse. There is a very interesting correspondence between St. Augustine and some pagan gentlemen about the Incarnation. They had great esteem for some parts of Christianity—its sublime doctrine about God, etc., but they could not conciliate this with the idea of God in a small child's body. Their notion of God was vastness of dimension, not of power and love, etc., and St. Augustine explains to them their fallacy. If you have never read the letters, they are worth your study.

"I have met the same error frequently among Protestants, and shared it when I was a Protestant boy—a feeling of the sublimity of God when looking out on the starry skies, and then the meanness of a God in a tabernacle in a poor chapel, in a back street of a country town. You may be sure that such notions, founded on material images of size and space, have more to do with heresy and infidelity than is generally thought. Our philosophers are quite as gross in these matters as our peasants.

"But there is a question you ought to treat," etc., etc.

Father Bridgett then goes on to speak of other personal matters, which, being of no public interest, need not be quoted here.

SOCIAL DISTURBANCES: THEIR CAUSE AND CURE.

"Hodie naturalismi fautores propagatoresque creverunt; qui vim et seditiones in populo probant: agrariam rem tentant; proletariorum cupiditatibus blandiuntur, domestici publicique ordinis fundamenta debilitant."—POPE LEO XIII., *Encyclical on the Third Order of S. Francis*.

To judge from the harangues of some of the most notorious demagogue orators of the century, or even from the inflammatory articles in some of their most influential periodicals, one would naturally conclude, not merely that all inequality must be intrinsically wrong and iniquitous in itself, but that it must be quite a special form of iniquity which has no existence anywhere but in the case of wealth and material advantages. Communists speak and argue for the most part, as though there were some grave infringement of an otherwise universal law in one man being richer than another. They lay such stress, not merely upon the duty of the rich to distribute their possessions among the poor, but upon the right of the poor to help themselves to the

goods of the rich, that one might well conclude that every inequality were a sin of a wholly exceptional character, to which no parallel can be found in any other department of human experience. Their writings, their denunciatory proclamations, their public utterances, are strongly tinged with this view. It lies on the surface of all their treatises, and may be gathered with little trouble from the attitude they are everywhere accustomed to assume.

Yet so far from such a view being consonant with facts, we find the law that universally obtains is just the very opposite. Not equality, but inequality everywhere prevails. It is a law that governs all things ; more universal in its operation than the law of gravitation, since it includes the spiritual as well as the material, and more irresistible even than the moral law, for human perversity is powerless either to control it or to oppose it. It exists in every portion of creation, and so far from being a malicious contrivance or an evil consequence of man's malevolence, it nowhere so conspicuously asserts itself as where man's power cannot penetrate, and where his influence is least felt. This general inequality too is concerned with possessions far more valuable in themselves, and even in the estimation of the multitude,

than any material wealth. Thus all admit that health and strength, a robust constitution and a long life are greatly to be preferred to a large estate or an ample fortune. What consolation indeed can money offer even to the wealthiest aristocrat, when tormented with dyspepsy or hypochondria? Though he possess the treasures of Cræsus and the wealth of all the Indies, he will still be a pitiable and unhappy object compared with the lowest tenant on his estate whose mind and body are at ease! Yet what gifts are more unevenly distributed than health and bodily vigour? Or we may consider any other gift of nature, and we shall observe the like diversity prevailing. How exhaustless, for instance, are the degrees of mental ability possessed by different men, beginning with the born idiot and the simpleton, who can hardly be taught the rudest trade, right up to the highest genius who maps out the heavens, reads the secrets of nature, or, as a consummate statesman, sways and shapes the destinies of nations. Are not Homer, Shakespeare and Dante among the poets, and Aristotle, Plato and S. Thomas among the philosophers, as far removed above their fellows in the wealth of their respective intellectual possessions, as any one class of men we may mention is raised above another in

material wealth? Yet who complains? Who revolts against such pre-eminence, or condemns Him who imparts His gifts, to one in one measure and to another in another? We might go further and extend our investigation even to matters of lesser moment. How does God act in respect to gifts of an inferior order? Does He endow every man with the same physical strength, or clothe each child with the self-same beauty of form and feature? Are there to be found any two human countenances in all respects identical? Or may we not rather ask if anything admits of such endless variations in form and expression, in grace and dignity? From the professional beauties whose portraits smile out upon the passer-by from the shop windows, and who fill the theatre and the opera-house with admiring throngs, down to the poor deformed and decrepit creatures of the blind-alley or the gin-shop, the degrees of beauty and loveliness are indeed all but infinite. Yet beauty—though a fragile flower—is undoubtedly highly prized; while to many it has proved a real fortune and even a passport to honour as well as to position and wealth. Similar considerations may be made concerning still less conspicuous gifts, such, for instance, as the human voice. What a totally

different thing it is when pouring and gushing forth in pure and limpid streams from the throat of a Patti or an Albani, and when creaking in the asthmatic organs of some superannuated town-crier! Or take the rich melodious singing of a Santley or a Sims Reeves, while he holds an audience of many thousands spell-bound, and compare it to the music of the shaggy-headed Jew, croaking out in hectic tones into the ear of night, "Old clo', old clo'," and say how great is the contrast. We hear much urged nowadays against the landed gentry of Great Britain and Ireland, and the rich revenues that their estates bring in; yet there is no doubt but that a good voice often pays higher rents to its owner, and secures a more certain revenue in these times of general depression, than an estate of many acres.

If we descend still lower and come to examine the minutest particulars, the same law of inequality still confronts us. Differences of height, of symmetry, of complexion, are as numerous as the number of different individuals among whom the comparison is made.

The colour of the hair, the brightness of the eyes, the shape of the mouth, the delicacy of the skin vary in each. Then there are differences in the power of endurance, in quickness of sight,

in acuteness of hearing, in sensitiveness of touch, and keenness of smell ; differences in every organ, limb, muscle and nerve, which only need pointing out to be at once recognised. Inequality is in fact the law of every created being. " If we ascend into heaven, it is there ; if we descend into hell it is there." In the kingdom of God itself there is a hierarchy. The brightness of the cherubim is outshone by the beauty and the glory of Christ's virgin Mother, and each angel shares in an ever varying measure in the fulness of God's being, and in the brightness of His glory, while the entire spiritual host is ranged in varying positions of dependence and subordination, forming choir above choir, and tier above tier ; none equally rich, great or beautiful, but each occupying its proper position, like the stones in some vast edifice, and contributing to the perfection and magnificence of the whole. Thus from the first of God's creatures down to the last, inequality is the universal law. So that if we begin with the highest angels in heaven and continue our examination till we reach the tiniest leaves of the forests, or the minutest grains of sand that lie in countless myriads along the shelving beach, we shall find that no two are in all respects equally endowed or equally enriched.

The law of inequality, which affects all else, will therefore naturally and inevitably affect the distribution of wealth. Indeed this must follow as a necessary result of man's inequality in other respects, for since wealth is a consequence of certain antecedents, and we have seen that no antecedents are alike in any two individuals, it follows that wealth must differ likewise. Indeed, to suppose that it would be possible to make an equal distribution of wealth, or at least to suppose that such an equal distribution when made could be maintained while inequality in everything else continues, is so obviously absurd that time would be ill-spent in attempting to disprove it.

From the dawn of creation to the present hour men have always been obliged to recognise such distinctions as superior and inferior, ruler and subject, master and servant. Some have invariably held subordinate positions, while others have as invariably ruled and directed. And wisdom is as often shown in knowing when to obey, as in knowing when to enjoin obedience. Differences of wealth have also always existed, and all that is consequent upon them. In every age we find the poor and indigent forming an important section of the community, and there seems little likelihood

of their number decreasing as the world grows older, and the struggle for existence becomes more keen and universal. In sooth, as long as human nature remains what it is, and the spirit of competition and emulation continues, it must stand to reason that many millions of the human family will be left behind in the race, and sink into positions of comparative misery and want. We are not defending such a state of things ; indeed we most fervently wish it were otherwise. All we are doing is to state what we believe to be the fact, that poverty and want will ever exist, and that though much may be done no doubt to alleviate their bitterness and even to diminish their amount, still they will never altogether disappear from our midst. Have we not indeed the divine assurance to the contrary? "The poor ye have ever with you," said the incarnate Wisdom of God, and His words alone might suffice ; but even apart from His divine promise we see little reason to doubt but that while the world lasts the well-to-do will ever find an abundance of outstretched arms and open hands seeking their aid and supplicating charity. Is it not, in fact, a part of the economy of God's providence to allow the poor to form a sensible element even within the Church itself? Not alone

that there may be some to represent the position He himself once deigned to consecrate and to occupy, when He wandered a stranger and an outcast upon earth, and "had not whereon to lay His head"; but also that while the rich may glorify Him by their generosity, the poor may no less magnify Him by their patience and resignation.¹ This, however, supposes, especially on the part of the poor, a certain heroism and a spirit of sacrifice not altogether natural to man. For voluntary poverty is, after all, a supernatural virtue, and not indigenous to the soil or clay of which we are formed. It does not spring up spontaneously in our hearts. There is no inherent tendency in man to choose privation and penury, and the hard life and the coarse food and the scanty clothing that poverty invariably enjoins. According to nature, the average man is even further from being a saint than he is from being a philosopher. He will not love poverty, therefore, for its own sake, nor call it his bride, like S. Francis, since he has not the heart of S. Francis; nor will he

¹ How beautifully the Holy Father points out our duty when he says: "Divitem misericordem et munificum, pauperem sua sorte industriaque contentum esse oportere: cumque neuter sit ad hæc commutabilia bona natus, alteri patientia, alteri liberalitate in cælum esse veniendum."—*Encyclical Letter of Pope Leo XIII. on Third Order of S. Francis.*

even, like Bretherton,¹ prefer the wealth of few wants to the wealth of great possessions, for his mind is sensuous rather than philosophic. No ; man, according to nature, shrinks from hardship, and heavy work, and tedious occupations, and long hours, and scanty pay, and all weariness and fatigue are hateful to him. He prefers abundance to scarcity, riches to poverty, pleasure to pain, and rest to labour. What is the result? Well, if he has got little, he will try to get more ; he will endeavour to raise himself above want ; he will better his position and exert himself to grasp the golden cup of affluence, which he sees with envious eyes others around him are pressing with such evident relish to their lips. Thus, in those who are deficient in this world's goods, and who feel the pressure of poverty, there will ever be a strong craving to possess, at least in part, the wealth they see in such profusion around them. They will become daily more conscious of an aching desire to share in the conveniences and pleasures that money commands ; and this desire, strong already, will grow stronger and stronger in proportion to the extent in which they realise their own miseries

¹ Under Bretherton's statue in Peel Park, Manchester, are written these words : " My riches consist not in the extent of my possessions, but in the fewness of my wants ".

on the one hand and the power of wealth to relieve them on the other.

This tendency to appropriate what is thought to be such a source of happiness is inevitable.¹ As a tendency it must remain, and man cannot free himself from it, nor pluck its root out of his heart. It can no more be destroyed than the fear of death, or the shrinking from shame. But what is more, it is almost certain to assert itself, and to impel to action, unless some counter-check be interposed between the desire and its object; for man naturally and always follows his inclination, unless there be some sufficient motive to deter him. What is it, then, we may ask, that keeps the indigent multitude from rising in a body and taking forcible possession of the wealth and capital of the country? It is not so long ago that our ears were tingling with the news of riots and risings among the dissatisfied orders in Belgium and America, and even in the very capital of England itself. These, it is true, were but

¹ The following remarkable words of the great saint and pontiff, Gregory, will strike familiarly upon the ears of many of our readers: "Quid enim vetus, quid carnalis homo noverat, nisi sua retinere; *aliena rapere si posset; concupiscere, si non posset?* Sed cœlestis medicus singulis quibusque vitiis obviantia adhibet medicamenta".—*Breviarium: In III. nocturno Com. unius Martyris.*

futile and ill-concerted attempts on the part of a few ; but they show the spirit of the times, and partly indicate its far-reaching action. And that spirit may grow in intensity, as it is certainly growing in extent,¹ till at last these vague, uncertain rumblings in the lower and more hidden strata of society may develop into a general upheaval of its entire crust, and the formation of a volcano that will spread desolation and confusion on every side. In any case, it is clear that a tendency so natural—and, consequently, so universal—as the tendency to covet what is pleasurable, and to seize what is coveted, needs a strong counter-check to prevent it issuing in the most disastrous results to society at large.

The question then at once suggests itself—what are the hindrances, or checks, we have to rely on? When an irrational animal is attracted by an object, it must, by its very nature, obey the attraction ; and man, in so far as he is an animal, has, like all other animals, a spontaneous inclination to follow his attraction also, and to seize what he covets, but always with this fundamental difference, that while

¹ “Se la statistica non è stata esagerata, noi abbiamo nel mondo nostro diciotto milioni di così detti operai comunisti e socialisti.”—*I Poveri e i Ricchi*, p. 345, 1885.

a beast cannot help itself, man is free and the master of his own acts. Thus, for instance, the inclination to drink when he is thirsty, or to eat when he is hungry, is as strong in the man as in the beast, but unlike the beast, man may restrain himself, even though the means of indulgence are not wanting, and refuse to be guided by his natural instinct. Yet even that power can be exercised only on one condition—only on condition that some motive is suggested by the intellect which may set in motion an “anti-impulsive effort,” as Dr. Ward terms it; for man’s freedom consists in a choice of motive, not in the power of acting without a motive. What then are the motives that induce Poverty to conquer the inclination to thrust its hand into Wealth’s pocket, and to rifle it of its treasures? What keeps back the millions of the poor from appropriating for their own use the goods of their more fortunate brethren? Many motives may be suggested, but they may all be reduced, for our present purpose, practically to two. First, a sense of impotency; and, secondly, a sense of duty. If one or both of these motives possess the mind, the tendency may be successfully overcome; but if neither motive be available, then, in ninety-nine cases out of a hundred, the tendency

will be obeyed. A concrete example will, perhaps, do more to make this clear than many words of explanation.

We will suppose then that we are at the close of a bleak and wintry day. The streets are dreary and deserted, and the gloom of night is settling over the town. The heavy tread of a weary loiterer falls upon the ear, and presently his emaciated form emerges from the darkness. He is cold and wet and faint with hunger, for he has been exposed to the elements all day, and has tasted nothing since morning. His footsteps continue to sound in monotonous cadence, till he stands at last before a comfortable restaurant, where a number of revellers are taking their evening meal. Here he pauses, and sniffs the smoking joints that load the hospitable board ; the savoury odours of stews and curries, fricassées and ragoûts, are wafted towards him through the half-open casement ; he catches provoking glimpses of sparkling hock and fizzing champagne, and of wines and liqueurs red and white, and as he looks, a strong inclination to share in the feast takes possession of him. In spite of himself, he feels a violent impulse to draw nearer and appease the hunger which is tormenting him. The inclination is unavoidable. He can no

more extinguish it by an act of the will than he can by an act of the will create a basin of hot turtle soup, or a bowl of usquebaugh. Do what he may, the inclination remains unabated, undiminished. Further, were he a mere animal instead of a rational being, he would not merely feel the stimulus of hunger, and the desire of gratifying it, but he would be at once guided and controlled by that desire ; but being a man and not a beast, he may, in deference to a suitable motive, withstand the promptings of his lower nature.

Now, to one in his position two motives will probably suggest themselves. First, the utter uselessness of any attempt that could be made ; and, secondly, its undoubted unlawfulness ; for we are not now supposing a state of *extrema necessitas*, in which to help oneself to bare necessities would be permissible. Thus, if he fully realise that as soon as he makes the smallest effort to snatch at the viands, or even to introduce one foot into the room, he will be ignominiously expelled, and that so far from securing any food he will arouse against himself general wrath and indignation, and finally be marched off to jail and arraigned before the judge as a thief and a disturber of public peace and order ; he will have a very strong motive

—and generally a sufficient one—to resist his inclination. In a word, he implicitly or explicitly MEASURES HIS STRENGTH AGAINST THE STRENGTH OF THE POSSESSOR. He believes it to be insufficient, and that no fair chance of success can be expected ; so he wisely abandons the project, and goes on his way to break a crust with his youthful consort in Pigsty Alley, Seven Dials.

But let us, merely for the sake of argument, suppose it were otherwise. Let us suppose that no inconvenience would arise from his helping himself to his heart's content to every dish upon the table, beyond an impatient gesture or an indignant exclamation from the persons seated around it. Let us suppose that he might eat and drink and be filled without fear of exciting any more serious consequences than the repellent glances and muttered curses of the jovial revellers. What then? Well, his position would be entirely changed. The first motive can influence him no longer ; the sense of impotency has disappeared, and all the strain of inclination must be held in check by the second motive.

The famishing man has the power, or thinks he has, to glut his appetite at the expense of his neighbour, so that but one thing will now

restrain him, and that is conscience ; and “ conscience doth make cowards of us all ”. If he has faith and believes in an all-seeing Judge, and a place of future reward and punishment, and the sinfulness of robbery and injustice, he may still be restrained—at all events the motive is there, and of sufficient strength. But once remove that last barrier, and his inclinations will bear him away as surely and as swiftly as a boat which has been cut from its moorings is borne away by the swift sweep of the rushing torrent. This is a mere illustration, but it admits of an easy application, for the individual is a faithful miniature of the multitude, which is but a collection of units swayed and controlled by similar passions and propensities. “ The little waves make the larger waves,” says George Eliot, “ and are of the same pattern,” which, after all, is only a poetical rendering of the old scholastic axiom : “ Totius et partium eadem est ratio ”.

Instead of a single hungry man we must substitute in thought the indigent multitudes, and in place of a well-spread table we must put the accumulated wealth of the higher orders, and then work out the problem as before.

There is, spread out over the world, a great

and ever-increasing mass of men—poor, ill fed, hard worked—who look with envious eyes at the wealth, the abundance, the luxury, and the ease of the more privileged classes—men who would gladly lay their hands upon the goods and possessions of their more fortunate brethren, who are clamorous for food and clothing and the very necessities of life, which they can hardly procure even by hard and prolonged labour. This class has always existed, and always will exist, in a greater or less proportion. Many among them have been good and sincere Christians, and borne their labours and sufferings with truly Christian virtue, sometimes even making of their poverty a veritable ladder on which to mount to the highest places in heaven. Others, on the contrary, have grown weary of bondage, and have become discontented, resentful, and rebellious, without patience, without religion, without God. What is it that has kept them from wholesale rebellion and general pillage? Why have their efforts been so sterile, and their attempts so spasmodic and partial? The answer is plain and full of significance. Evidently because they have not known their power. Because they have been incapable of reasoning out their position, and estimating the force and momentum of numbers. Nor have

they been able to coalesce, or form themselves into a solid and compact whole, ruled by one master mind and informed by one purpose. They were but discontented units ; but isolated, and therefore helpless factors, and wholly unconscious of the resistless might of many parted streams, which, when drawn and bound together into a single broad and headstrong torrent, can force their way with ease through rocks and barriers which have for centuries defied the feebler action of slowly moving runnels. But now times are changing, and the vivifying waters of knowledge have been filtering through the middle strata of society down to the very lowest. The "great unwashed" can read and write ; and what is more, can think and reason and compare, and even combine with one another, and assist one another in one common cause, not merely by expressions of sympathy and interest, but by a voluntary supply of money and means. In fact, in the more important strikes and contests at elections, comrades who have been arrested as so-called "victims of the reactionary bourgeois" and organs of the party are supported by free contributions, made, it must be understood, with considerable personal sacrifice :—

Thus in France the demonstrative election of the social

revolutionary Communist Blanqui (who had been excluded from the amnesty as deputy of Bordeaux) had been made possible solely by the munificent contributions from Germany, England, Belgium, and Italy, and quite recently a strike of 5,000 porcelain workers at Limoges was supported from London; while a few years ago the Society of the "Red Cross" was founded at Geneva, for the purpose of assisting the "victims of Russian despotism," Von Lavroff and Vera Sassulitsch, and its appeals went the round of the whole Socialist press, and did not fail to meet with success. Germany especially seems to be favoured in this respect in consequence of its many foreign connections, so that not only are subscriptions continually arriving from Paris, London, Switzerland, and especially from America, in support of the organs of the party, the "victims of the Socialist law," and the larger strikes, but also the expenses of the election for the Reichstag were met for the most part by the money brought by Fritzsche from America, and more recently money has been received for the election of Bebel at Hamburg.¹

Hence, if not wholly freed from the bonds of ignorance, they are at least loosening its fetters more and more, day by day. They are beginning to appreciate their position, to measure their strength, and to realise that they are a power of no inconsiderable magnitude "The inequalities of fortune," remarks Mr. Lecky,² "are undoubtedly felt much more keenly than in the past. The agglomeration

¹ The above quotation (p. 142) and the succeeding ones are taken from *The Red International*, by Dr. Zacher, Assessor to the Government.—Authorised translation by Rev. E. M. Geldast, M.A. London.

² *Democracy and Liberty*, p. 409.

of men in great towns, and the sharp division of those towns into the quarters of the rich and the quarters of the poor, bring into salient relief the too frequent contrasts between extravagant luxury and struggling misery. Education has strengthened among the poor the sense of the disparities of life, and by increasing self-respect, and multiplying tastes and wants, it raises the standard of what are deemed necessities. Well-being has greatly increased, but it has not increased as rapidly as desires. . . . All this restlessness concurs with the *unexampled opportunities for agitation* which the conditions of modern life afford; with the growth of a great popular press, which represents, echoes, re-echoes and intensifies every discontent." What will be the consequence? The more fully they realise their power the readier will they be to assert it. Already signs are not wanting which indicate both the spread of that knowledge and the growth of that power, for a power they undoubtedly possess, as a moment's reflection will serve to make evident. Power, in the only sense which has any meaning in the present connection, is mainly the resultant of two factors, knowledge and force. Where knowledge is equal in all, the greater the number, the greater the strength. The higher classes

owe their ascendancy in its last analysis to their higher education and greater mental development. As in an individual the mind controls the motions of the hand and foot, so in a State intellect controls labour. Knowledge is seated chiefly in the dominant classes, labour in the subject classes. Thus where the difference of intellect is very strongly marked, numbers go for little or nothing ; but the more this difference is diminished—and it is being diminished every day—the more will the strength of numbers weigh in the balance. The better educated the people are, the more will their influence tell, and the more irresistible will it become. Hence their strength is already beginning to be felt and feared to an extent never before known. The first check upon any rebellious tendency, *i.e.*, impotency, is thus vanishing, so that if conscience goes too, and the last check is removed, then God defend the rich and the prosperous.

Let us listen to a few extracts from the great Anarchists' organ, the *Freiheit*, which will show us their advance in knowledge, and the use they are prepared to make of it :—

Science now puts means into our hands which makes it possible to arrange for the wholesale destruction of the brutes in a perfectly quiet and business-like fashion. Princes and

ministers, statesmen, bishops, prelates and other grand dignitaries, a good part of the officers, the greater part of the higher bureaucracy, sundry journalists and lawyers, in fine all the more prominent representatives of the upper and middle class, these will be the subjects over whose heads we shall have to break the staff (pp. 23-4).

So Eudes, who may be considered a representative of the class, exclaimed at a meeting attended by thousands, in which the murderer Ryssakow was chosen honorary president :—

“If the tyrants unite to oppress the people, they must unite to annihilate the tyrants, the kings, and even the bourgeois.” But how this case was to be carried out numerous placards, distributed during the night in different cities, gave the necessary explanation. There one might read, for instance: “Workers, let us use the means which science offers, and in the employment of which Nihilists and Fenians are our example. It is a humane action to put to death the exploiters and assassins of the people.” Different papers also, such as the *Droit Social* of Lyons, gave elaborate instructions on the preparation and employment of dynamite, nitro-glycerine and other explosives, and unceasingly incited to murder, pillage, and arson (p. 61).

Indeed violence is everywhere urged as the most efficacious means to bring about the universal equality after which all aspire : thus, for instance :—

On the anniversary of the murder of the Emperor Alexander II. this “execution” was declared, in a largely attended meeting to celebrate the event, an “act of necessity, since the emancipation of the people could not be carried out except by *violence*,” and to this was joined the hope “that all tyrants would now soon obtain their due reward”. Moreover, at a celebration

which was held a few days later in remembrance of the Paris Commune, a speaker concluding cried : " For the king the bomb, for the bourgeois the bullet, for the priest the dagger, for the traitor the rope " (p. 69).

In another place it is stated that—

The agitators consider it of supreme importance to strengthen the workers in their hatred of society, and they established a secret press, the productions of which form the most effective means in this direction (p. 113).

Hence, if this active propagandism goes on, we may expect something more than a repetition of the comparatively insignificant attempts of anarchists lately witnessed in Russia, Germany, Italy, Belgium and America. As knowledge increases, and greater opportunities of combination are gained, the attempts upon life and property will become far more serious and far more successful. What, then, is to be done? We cannot rob the agitators of their acquired knowledge, as we might wrest a sword from the hands of a madman. There is but one really effective step, and that is to teach them how to use it. For this purpose it will be necessary to fill their hearts once more with the light of divine Faith and the true spirit of the Gospel of Christ. If the people were religious ; if they believed in God and loved Him ; if they recognised in Him the person of a wise and just Judge, ready and able to punish

crime and to vindicate the claims of justice ; if they realised further that poverty is not dishonourable, that a humble position is not without dignity, and that labour may be sanctified, and weariness and fatigue blessed and rewarded ; if they could be taught to honour Him who being rich became poor, and who though strong became weak, and though the Lord of all became the servant of all that He might gain all, they would not only abstain from unlawful rebellion, from crime and evil, bloodshed and assassination, but they would find happiness in their lot, and enjoy peace in the midst of poverty, and calm in the midst of trouble. To those that are duly enlightened, and who recognise this life as nothing more than a short avenue leading up to a glorious eternity, and who are able to contrast the brief moment of the present with the endless duration of a limitless future, and who have believed in the words of the apostle that "the sufferings of this time are not worthy to be compared with the glory which is to come" ; to such as these we say, the invitation to resist lawful authority may indeed come, but it will come only to be repudiated and condemned as contrary to justice and offensive to God. Violent means and revolutionary measures will never be sanc-

tioned or encouraged by true followers of the Crucified. Even if they suffer, they will remember that He suffered yet more, "leaving them an example that they may follow in His footsteps". Lawful means, of course, they will not scruple to use, but the unlawful they will leave to those whose faith has been wrecked on the treacherous sands of modern scepticism. For such, indeed, there will be little motive for the exercise of patience or self-restraint. Why, indeed, should *they* be patient who can descry no existence of any kind beyond the tomb, and who have nothing either to hope for or to fear, when their earthly course is run? If Heaven be a dream and hell a delusion, why should they plod on day after day in a monotonous, pleasureless existence? Why should they labour and consume their strength for others, if as soon as they are no longer fit for toil they must die like dogs, and be no more? Why? Yes, we may well put the question, but who will answer it? The only answers we can look for are blood-stained cities and the crumbling palaces of kings.

When God is driven out of the brains of men, the whole system of privilege by the grace of God comes to the ground, and when a heaven hereafter is recognised as a big lie, men will attempt to establish heaven here. Therefore, whoever assails Christianity assails, at the same time, monarchy and capitalism (p. 22).

In spite of such sad forebodings, we must not shrink from preaching the gospel of labour, for it is the Gospel of Christ, and "woe unto us if we preach not the Gospel". As ministers of God, we bid men accept in all patience the burden that Providence has placed upon them, at least until they can lay it aside in a legitimate and Christian manner. We scruple not to repeat to each succeeding generation the words that were in the first instance addressed to Adam: "With labour and toil shalt thou eat thy bread all the days of thy life," and "in the sweat of thy face shalt thou eat thereof till thou return to the earth, out of which thou wast taken"; but to these words of bitterness we fail not to add words of encouragement and hope. If you must labour and toil, you have a motive to support you, for is not "your reward exceeding great in Heaven". You are asked to "suffer with Christ". True. But to what purpose? in order that you "may reign with Christ" for all eternity. Nay, we declare the poor in spirit to be even blessed, but solely because God Himself has expressly stated that "theirs is the kingdom of Heaven". So blessed too are those that mourn, but only for a similar reason, *viz.*, because "they shall be comforted". Heed not, we cry, the momentary

tribulations of this life ; stagger not beneath the load of earthly care that oppresses you ; faint not under your burdens, trials, and tribulations, for all these are light and trivial in comparison to the joys that await you in the home of the Father. "Eye hath not seen, nor ear heard, nor hath it entered into the heart of man to conceive" the nature of those joys. But for whom has God especially destined the abode of eternal happiness ? "Hearken, my dearest brethren," says St. James ; "hath not God chosen the poor in this world, rich in faith, heirs of the kingdom which God has promised to them that love Him" (ii. 5).¹

Ah ! comfort under such conditions, yea, even "joy in believing" is reasonable, intelligible, natural ; it is easy to experience it. With such a promise, with such a hope, a light heart may well beat within the most poverty-stricken breast. But blot out the future. Efface from the tablets of the mind every trace of hope of a home beyond the grave, and what man will go toiling and moiling on in his monotonous humdrum existence when he is offered gold and

¹ "Bossuet has shown in a magnificent discourse that God has built His Church on the poor, and that the rich have come into it by a sort of indulgence."—Bp. ULLATHORNE, *The Ground-work of the Christian Virtues*, p. 182.

wealth as the reward of rebellion, and when he has everything to gain and nothing to lose? We suffer now with patience for the sake of God, but if God does not exist, the very foundation of our patience is gone: we resign ourselves now to a hard lot, because we look forward to a glorious recompense hereafter; but if there be no "hereafter," why should we be resigned? We are induced to put up not merely with misfortune and adversity, but even with the injustice of rulers and the cruelty of masters, because we believe that a day will come, whose dawn is e'en now approaching, when infinite Wisdom and Power will declare itself, and judge between us and our oppressors, and render to each man according to his work. A day when strict justice will at last be dealt out to all, and each good act, word, and thought will receive its proper reward, and every deed of darkness its appropriate punishment. While such a hope burns in the hearts of men, and such convictions fill and energise their minds, even the poorest and most laborious classes may possess their souls in peace: "In peace I will sleep and I will rest, for Thou, O Lord, hast singularly settled me in hope" (Ps. iv.).

But, stamp out every spark of hope in a future world, and in a day of universal justice,

and who will then hold back the hands of the enraged multitudes? Who will hinder them from wresting the prizes of life from the more fortunate who possess them? What power upon earth will rise to stay the onward rush of the seething and turbulent multitudes, and cry, "Peace be still"? As a river, whose natural course has been forcibly arrested, will first roar and riot in its bed, and then rising, overflow its banks, and flood the country far and wide, carrying devastation and ruin in all directions, so will they, if all future hope is cut off from them, turn and demand in the present what is denied them in the future. Pleasure and joy they must have, *in re* or *in spe*. The heart of man is drawn to happiness as a stone is drawn to the earth. It is its very food, without which it must perish and waste away. If men have none to hope for in the future they will seek it in the present. And if they cannot get all that they desire they will at least get what they can. At all events, they will not stand listlessly by, and labour and toil that others may squander and spend; they will not suffer and sweat that others may loll in luxuriance and ease; no, emphatically no! There is no sufficient reason why they should. They will combine for one common purpose,

and rise and dispute possession with the wealthiest ; they will insist upon sharing their riches with them ; for they, too, will have a day of pleasure and an hour of revelry before their life is spent, and the grave closes over them, and they sink into eternal oblivion.

Have not rumours of preparation already reached our ears ? Indeed, the ground has been gradually undermined, and secret clubs have been organised among the workers “ by inflammatory publications, of which many thousands of copies have been distributed among the masses as leaflets on the most various occasions ”. As long ago as—

In the year 1881 the *Freiheit*, and other publications of this party, began urgently to recommend the study of chemistry to the workers, and to bring it home to them with what success dynamite could be made use of in the struggle against society, and to advise them not to shrink from committing murder, arson and pillage ; and these continuous incitements to open violence bore fruit already at the end of the year 1881 (p. 112).

So, too, in the International Revolutionary Congress held in London from 14th to 19th July of the same year a similar doctrine was strongly inculcated. Among other resolutions couched in a similar strain, we select the following :—

For the attainment of the end kept in view, namely, the annihilation of all rulers, ministers, the nobility, the clergy,

the chief capitalists, and other exploiters, every means is allowed; and therefore careful attention, especially to the study of chemistry and the preparation of explosives as the most effective weapons, is recommended. In addition to the chief committee in London, an internationally composed "executive committee," or "inquiry office," is appointed, whose business is the carrying out of the decisions of the chief committee and the correspondence (p. 68).

Thus by every means in their power these desperadoes are seeking to gain possession of their share of the pleasures of life, and of the good things of this world. Who will blame them from their own point of view? Who will challenge their right to exert every faculty and to strain every nerve in their struggle after pleasure, if they be persuaded that now or never they are to taste of it? Right! The very idea of right or wrong is meaningless to the unbeliever. Conscience, as distinguished from utility, must disappear, together with the idea of God and eternity, of heaven and hell. No, we cannot blame them; once deny the existence of the invisible world, and force must everywhere prevail, and might will become a synonym of right, and each man may get all that he can, and when he can, and where he can, and how he can. To suppose that tens of thousands of reasonable beings will go on year after year toiling and slaving, in poverty and

dirt, scantily fed, scantily clothed and poorly housed, when they have once been persuaded that they might shake themselves free from their chains, and strike terror and consternation into the hearts of their employers, would be absurd in the extreme. Even were we able to put before them the most powerful arguments to show that success could never reward their efforts, would that hinder them from at least making the attempt? Would they trust our reasoning, or be so ready to accept the assurances of persons so deeply interested, of persons whose property and position and social pre-eminence are hanging in the balance and depending upon the strength or weakness of the chain of argument? We doubt it. Besides, "Hope tells a flattering tale," and as "a drowning man will snatch at a straw," so these will grasp at any chance that may be offered them of attaining their end. Spurred on by the voice of unscrupulous leaders, who are never wanting at such a crisis, they would leave no stone unturned to reach the desired goal. "Not by writing incendiary articles," one of their leading papers remarks,—

"not by revolutionary literature spread among the masses alone, can a revolution be brought about. One may use these indeed as means of agitation, in order thus to awaken the

revolutionary idea ; yet the real factor of the fight with which we have to reckon is action, and this must never be lost sight of. . . . Forward then to action. Every single man who sympathises with us must also be firmly resolved to stake his life upon the issue. Away with every doubt and insignificant scruple that yet hold you back. Look neither to the right nor to the left. There is but one goal and but one way to reach it which we have to take, and that is the forcible overthrow of the existing society" (p. 23).

Another equally fervid instigation to general insurrection concludes with these menacing words :—

The day has come for us to say : "Each for All, and All for each"! Sound the battle-cry : "Proletarians of all countries, unite! You have nothing to lose but your chains; you have a world to gain! Tremble, tyrants of the world! A little longer, and before your short-sighted vision will dawn the red light of the day of retribution!" (p. 137.)

Thus it would seem that, even granted that we might convince them that success never would and never could be theirs, yet they would not rest content or inactive. They could disturb, loosen and destroy the foundations of society, and that would give them some satisfaction. They might create disturbance and confusion and racket and riot ; efface the old landmarks, and wreak their vengeance and their envy. Their lives are already in many cases so hard, they could scarcely be made harder ; their lot so sad that it could scarcely be made more so ; little, indeed, have they to lose, "except

their chains," but their gains may be considerable ; they can hardly render their condition worse, but they may easily better it ; in rebellion they see at least some glimmer of hope, but in all else impenetrable darkness has set in, for the light of Faith is quenched.

Thus, with the eternal future of unspeakable delights blotted out from their minds, and impelled by the fury of a now-or-never despair, they would break over every barrier, and in the violence of their efforts to seize and plunder would cover the world with blood and carnage. Even if they failed to enrich themselves or to taste the luxury they covet, they would at all events glut to the full the spirit of enmity and hate. If such rebellion "will feed nothing else, it will feed their revenge".

To what conclusion then are we driven, but that Faith is necessary ; so necessary indeed that, as Voltaire expresses himself, "if there were no God, we should have to create one". If, indeed, absence of Faith and Religion breeds anarchy, disorder, and rebellion so soon as education is made general, and knowledge permeates through the coarser fibres of the social organism, our only inference can be, either that knowledge must be confined to the rich, or that Religion and Faith must spread to

the poor. The first alternative deserves not to be considered, so we must conclude that Faith and Religion are necessary, and if necessary, then true, and if true, to be promulgated, accepted, and practised. Let the Faith revive, and gain a firm hold upon the hearts of the people, and then anarchy and communism will languish and finally die out. The poor will grow more content, while the rich will become more considerate, and the eyes of both will be lifted up on high to look for something fairer and brighter by far, than the false glimmer of gold or the delusive promises of a deceitful and transitory world.

THE SOCIAL DIFFICULTY.

"Si quilibet suæ necessitatis sufficientiam recipiens, relinqueret superfluum indigenti, non esset dives nec pauper"—A. C. Luc, p. 339.

See also end of this book.

"There is nothing more powerful than religion (of which the Church is the interpreter and guardian) to draw rich and poor together, by reminding each class of its duties to the other, and especially of the duties of justice."—P.P. LEO XIII., *Encyclical on Labour*.

"You say that everybody ought to remain content in the position in which Providence has placed them. Ah! my friends, that is the gist of the whole question. *Did* Providence put them in that position, or did *you*? You knock a man into a ditch, and then you tell him to remain content in the 'position in which *Providence* has placed him!' That is modern Christianity."—J. RUSKIN, *The Crown of Wild Olive*, p. 51.

THE strikes and lock-outs, and the constantly recurring trade disputes and public altercations between employer and employed, during recent years, have rung a warning blast throughout the length and breadth of Europe, which, it is to be hoped, will not fall upon deaf or inattentive ears.

A profound feeling of distrust and discontent reigns throughout the great masses of the people, and the occasional ebullitions of impatience which rise to the surface in the shape of riots, strikes, and other forms of violence,

are but indications of a much more widely spread and deeper dissatisfaction.

The labouring populations in Great Britain, as elsewhere, are not only gaining experience, and acquiring a practical knowledge of all those great social and economical questions which most intimately concern themselves, and in which many take the keenest interest, but they are, at the same time, increasing enormously in number. And while their extraordinary multiplication adds greatly to their power and influence in the State, it, at the same time, intensifies the difficulties of their position, and renders the struggle for existence more acute and more intolerable.

That an immense amount of real misery exists upon every side, and that hundreds of thousands can but with difficulty eke out the bare necessities of life, seems unquestionable and unquestioned. That in many instances, especially in the overpopulated cities and vast commercial centres, hours are too long and wages too scanty, and work too often degrading and demoralising, are facts that need no proof.

Although there are, of course, rogues and vagabonds, and idle unthrifty wretches to be found everywhere; and though considerable

numbers may, through drink and viciousness, bring poverty and misery on themselves, yet the really culpable may be said to form but a comparatively insignificant fraction of that enormous section of the nation which is living, if not in a state of pinching poverty, at least in a condition so perilously approaching it, that any other feeling but one of rooted discontent must be humanly impossible.¹

While large sums of money are squandered and scattered, and luxury and extravagance are indulged without stint or hindrance in one quarter, in another the population starve and pine away for the lack of the most indispensable requisites of life. The country itself is rich, prosperous, and powerful. The credit of England stands high among the nations of the world, but its wealth is held in the hands of the few, and the golden streams that pour into the coffers of the upper classes scarce touch the finger-tips of the poor.

What the hard-worked struggling classes—such as the tram-car conductor, and the omnibus driver, working for fourteen hours a day for a few shillings wage, and the seamstress making up shirts and trousers at one shilling and six-

¹ *Vide* Charles Booth's *Life and Labour, etc.*, chapter on Poverty.

pence the dozen,¹ and the enfeebled, who can get neither work nor bread feel most keenly is—that there is enough, and indeed far more than enough, for all, if wealth were less capriciously divided, and if lands and territories were not locked up by private indolence from yielding a just return.

While many and bitter complaints are heard as soon as any lack of patience or resignation is manifested by the ill-fed and ill-clothed poor, and though cries of virtuous indignation ascend to heaven whenever the sharp prick of pain and misery goads them to acts of lawlessness, and forces them, for want of other help, to seek to help themselves, there seems very little disposition on the part of the well-to-do to inquire into the position of their subordinates, and to remove the disabilities under which they suffer so severely.

The world is broad and wide. There is room enough and food enough for all, and indeed for many times the actual population, if only the teeming multitudes, now starving in the congested districts and overcrowded centres, where

¹ "We have learned from the evidence before the Sweating Committee that women are glad to make trousers at eighteen-pence per dozen, etc."—*Free Trade in Capital*, by A. E. Hake, p. 160. A.D. 1890.

they lower wages and help to ruin each other, could be more equitably distributed over the vast stretches of wholly unpopulated or scantily populated areas. Since, however, this is an assertion that is scarcely realised, and is indeed commonly denied, we had better offer some confirmation of it before proceeding any further. Let us appeal to facts.

Examining the statistics of the various countries of the earth, we find our suspicions abundantly justified. Russia in Europe has but 16·5 inhabitants to a kilometre, the United States but 6·7.¹ North America, considered as a unit, has but 4 persons to the kilometre, and South America but 2; while Australia with a land surface almost equal to that of Europe can boast of but *one* person to *three* kilometres—or about one individual to every two square miles.

Dutch Guiana has but 70,000 inhabitants, yet it could easily nourish 25,000,000. Brazil contains but fourteen or fifteen millions, though it possesses a superficies almost equal to that of the whole of Europe,² and might support between two and three hundred millions. Even countries till lately supposed to be barren and

¹ See *La Population*, pp. 200-14, par E. Van der Smissen, 1893.

² Europe, 3,756,970 sq. miles; Brazil, 3,219,003 sq. miles.

uninhabitable are now found capable of profitable cultivation. Thus, *e.g.*, according to the famous explorers Livingstone, Cameron, Stanley and others, the centre of Africa possesses marvellous resources. In Urua, for instance, to the west of Tanganyika, rice yields 100 fold, maize from 150 to 200 fold, and three such harvests may be reaped within eight months. One acre there, if planted with bananas, will support fifty men. In fact, Africa might sustain many times its present population. For while Europe has over eighty-eight inhabitants to the square mile, Africa has less than eighteen. Even *central* Asia could harbour a much larger population than it possesses, since it teems with undeveloped capacities.

In addition to these and other places, which are merely awaiting the advent of a population sufficiently numerous to turn their resources to account, there are many and not inconsiderable areas of land which are gradually being reclaimed and won over to cultivation and the use of man. Thus in Norway, where in 1886 there were but 1,800 square miles of arable land, the agriculturists reclaim from the sea and the fjords each year more than 25,000 acres. So again, in the State of Florida, 1,000,000 acres of marsh and swamp have

been drained and rendered so valuable as to be sold at from \$5 to \$40 per acre.

England itself has not, by any means, been cultivated to the full measure of its capacity. According to the *Statesman's Year Book*, the proportion of productive area is in England but 80 per cent. of the whole ; in Wales but 60 per cent. ; in Scotland but 28·8 per cent., and in Ireland 74 per cent. The average for the whole United Kingdom is estimated as less than 65 per cent. of the entire area.¹ If this estimate be even approximately true, then it follows that considerably more than a quarter of the land in Great Britain and Ireland is not under cultivation. Though the amount of unprofitable land is diminishing year by year, it is only by slow degrees.

All this tends to prove that there is abundance in the world for all men, even though their number were many times greater than it is. It shows that the miseries and sufferings, and the unsatisfied hunger and thirst that exist, are owing, not to dearth of provisions and the

¹ See *Statesman's Year Book*, 1886. Mr. A. E. Fletcher stated, at the adjourned Jerusalem Chamber Conference, November, 1893, that "there are 6,000,000 acres in the United Kingdom lying idle, which ought to be cultivated, and many other acres that might be reclaimed from the sea, all of which work would give employment to thousands of men".

general means of subsistence, but to their absolutely unequal distribution. In fact, to use the words of L. Hobhouse, "the problem of to-day is distribution and not production" (*The Labour Movement*, p. xi.).

It is easier far, of course, to say what ought to be than to point to means and ways of accomplishing the desired result. Yet a clear perception of what each man may justly expect, and rightfully claim, should precede any actual attempts at readjustment. Unless indeed an intelligent view be taken of man's social status, and unless his rights and privileges be recognised and admitted, there will be little attempted and still less accomplished.

Men in power and authority wax eloquent when dilating upon the necessity of charity to the distressed and of sympathy with the sons of toil; they are even ready and anxious to loosen the purse-strings of the philanthropic, and to lessen actual pressure by timely doles. This is all very well in its way, but it is no solution to the social question. What the masses demand is justice, rather than an intermittent charity; and they will never be satisfied till they get it. They seek, before all things, a generous impartial recognition of their rights. No man who respects himself cares to remain

in the position of a permanent mendicant. Nor can we expect any one to be overgrateful for the condescending gift of five or ten pounds from a creditor who in strict equity owes him perhaps fifty or a hundred.

If we have any desire to better the position of our less fortunate brethren, we must begin by investigating their claims and examining their title deeds. If we do this fairly and without prejudice, we may possibly discover that what we have hitherto considered the widest charity will turn out to be considerably less than the scantiest justice.

Over and above the privileges that the civil law may confer, every man, by virtue of his birth into this world, and simply because he is a man, possesses certain definite and inalienable rights, with which no State or Government can justly interfere.

He has a right (1) to live—so long as he commits no act by which his life becomes forfeit to the State. And the right to live carries with it a right (2) to all that is requisite to maintain life. Consequently he may justly demand food and clothing and shelter: not indeed directly, save in exceptional circumstances, but indirectly. That is to say, he may justly demand work or employment by

which he can obtain the means of supplying his needs.

Further; since the Creator has conferred life, not as a penalty or a punishment, but as a privilege and a boon, it is evidently His intention that, speaking generally, man should enjoy life, and rejoice in his existence.¹ Man may fairly claim, therefore, not merely what is absolutely needed for bare existence, but also (3) what is requisite, in the present condition of society and civilisation, for ordinary decency and comfort.² (4) We say under the present conditions of society,³ because the requirements

¹ No less an authority than the Vicar of Christ lays down the principle that "there is a dictate of Nature more imperious and more ancient than any bargain between man and man—*viz.*, that the remuneration must be enough to support the wage-earner in reasonable and frugal *comfort*".—*Encyclical "On Labour"*.

As things are at present, millions of men and women are—to quote Bishop Smith's words—"not so much born into this world, as damned into it".

² "It is absolutely necessary to train up, to alleviate and mitigate the work of operatives in such a way that they may lead human lives and have leisure for family relations. . . . The present uncertainty as to wages makes family duties and affections practically an impossibility."—CARD. MANNING.

³ In similar words Archbishop Ireland also declares that the working-man has "a right to live, not anyhow, but as a Christian, as the father of a family, as an educated man with a home about him, with leisure for religious and social duties, with rest on Sundays, and a reasonable day's task, and the means of providing for old age and sickness".

of ordinary comfort in one age and place may altogether differ from those of another. The needs of the serf of the twelfth century and of the English or French peasant of to-day, are not at all identical, nor are the requirements of the American labourer the same as those of the Chinese coolie. These are elementary propositions, and may readily be deduced from first principles.

Difficulties may often be felt of course in the application of the most incontestable truths. Hence it may not unnaturally be objected that, much as we would wish to see all men freed from actual want, and enjoying a modicum of prosperity and comfort, we fail to understand how such a consummation is to be brought about. Now the root of the difficulty lies, not in the inability of nature to produce abundance for all, nor in the fact that some possess all that they can reasonably require to the detriment of others ; but rather in this, that some grasp and retain, and consequently withhold from the multitudes, a vast deal more than they at all need, or can even possibly use with any real profit even to themselves. They almost remind one of the dog in the manger.

Simple justice requires that every one should be in a condition to secure the necessities of

life before any individual be permitted to indulge in extravagant luxuries and superfluities. Setting aside the vicious and the dissolute, and all who have courted disaster by their recklessness and folly, and who may well be left to bear, in some measure at least, the penalty of sin ; we may surely contend that every member of the human family should be placed in a position to secure the means of enjoying the *ordinary requisites* of life, according to his state, before any should be allowed to indulge in its *dainties*, or luxuriate on its delicacies. No member of the body politic should go clothed with silk and broadcloth till shivering nakedness has secured a flannel petticoat.¹

No complaint is made against the general principle of inequality. Inequality does exist, and will exist, and must exist. It is rooted in the very nature of things. It is founded not only in wealth and material possessions, which might admit of a temporary equipartition ; but in a thousand personal and natural gifts and qualifications, which despotically resist all attempts at conventional distribution. Such are vigour of health, physical strength, power of

¹ What is superfluous *belongs* to the poor ; St. John Chrysostom calls it "the *patrimony* of the poor". "Res alienæ possidentur, cum superflua possidentur."—St. Aug. in Ps. 147.

endurance, mental endowment, personal ability and character, even length of life, and much else besides. Inequality is not only a necessity. It is also a benefit. It introduces into social life those harmonies and contrasts, relationships and interdependencies, mutual services and co-operations which go to establish a variety in unity, distinctly pleasing in itself and undoubtedly beneficial to the commonwealth.

We approve, and cannot but approve, of inequality, for inasmuch as it is indelibly written on the face of Nature itself, it manifestly carries with it the sanction of Nature's Lord and Fashioner. But there are limits even in the degrees of inequality between man and man; and beyond these limits we have no right to force things. Yet, as a matter of history, these limits have been exceeded again and again. Not alone when the freedom of men's consciences has been outraged, as under Nero and Diocletian and other pagan persecutors; not alone when physical liberty has been cruelly denied, as in the long ages of slavery and serfdom: but in these days too, when the pitiless heels of the sweater have trampled upon and crushed the defenceless labourer to the dust, unmindful of the cardinal principle, that each possesses positive rights and liberties, limited

only by what is due to the defence of the rights of others.

Liberty is tampered with and abused in all these cases, and in the last as truly, if not as extensively, as in the others. If a specific work done for an employer be worth five shillings, by what right can such an employer claim to take advantage of the man's extreme indigence to compel him to do it for half or a third of that amount?

There is here no fair contract. Why? Well because the workman is not really a free agent. He acts under constraint. He is driven by fear of starvation and death to enter into an iniquitous bargain. When the American slave-driver of a bygone day forced his slave to toil in the sugar plantation by scourging him with a whip, he scarcely exceeded his rights more shamelessly than does the modern sweater. The unjust employer of our day does not indeed handle the actual leather thongs that tore open the naked back of the negro, but he not unfrequently compels his labourers to accept impossible conditions by threatening, unless his terms are accepted, to leave them to sink under the more deadly lash of hunger, want, and nakedness.¹

¹ "Les développements de l'industrie ont produit des abus tellement odieux que, de l'aveu de tous, il serait difficile, pour

Even where hard and perilous work is undertaken, injurious to health and often destructive of life itself, certain employers hesitate to duly compensate the risk run and the danger encountered by any appreciable increase of wages. They have been known to excuse their selfishness by pointing to the supposed consequences. The men, they urge, will make a bad use of the extra money. They will spend it only in drinking, gambling, and living riotously, etc. Even supposing such an allegation were well founded, the fact might be to us, indeed, a source of regret, but it would by no means justify us in withholding from a single man the remuneration which is his due. He who hires the labour of another must give him its proper value. Should the labourer make a bad use of his hard-gotten wage, it is *his* affair, and the master has no more right to curtail the amount on that account than a Sovereign would have to appropriate an estate because its owner mismanages it, or to confiscate the income of some commercial magnate, because he is throwing it away in unprofitable enterprises.

It is the duty of a well-ordered government

ne pas dire impossible, de rien trouver de semblable dans les siècles de barbarie."—See *Assoc. Cath.*, 1881, p. 329, MGR. RENDU, Bishop of Annecy.

to seek the interests and welfare of the whole community. Its very *raison d'être* is to defend the rights of the weak against the strong, and to enforce the just claims of every class of which the nation is composed. But its power should be placed more especially at the service of those (1) whose needs are greatest, and (2) who are least of all in a position to defend themselves.¹ Can we flatter ourselves that the governments of to-day are, in this respect, fully justifying their existence?

The subject is worth considering. But we must preface our remarks by calling to mind a few facts.

The produce of the earth is intended by God for the support of the entire human race. By virtue of reason and intelligence conferred upon him, man is able to draw from the soil all that is requisite for his maintenance and well-being. But the self-same Reason that enables man to unlock the treasure-house of nature and to extract rich stores of food and clothing and other requisites, also teaches him, and with equal clearness, that the strong and the fortun-

¹ Leo XIII. declares that: "Whenever the general interest of any particular class suffers, or is threatened with evils, which can in no other way be met, the Public Authority must step in to meet them".—From the *Encyclical* "On Labour".

ate have no right to arrogate to themselves such a proportion as to leave their less favoured brothers to penury and starvation.

The whole source of the present mischief, suffering and discontent is traceable to the ghastly extremes that exist between affluence and penury, riches and starvation, which modern civilisation has gradually introduced, and which modern legislation has, more or less culpably, permitted to continue. Again we repeat, it is not inequality, but the frightful degree of inequality, that is felt to be an injustice and a national disaster, crying to heaven for redress.

The natural tendency, as things now stand, is to increase the inequality still further—to make the contrast yet more startling. Wealth produces more and more wealth. Poverty sinks to greater and greater depths. It is the law. Physical exertion may produce the necessaries of life, but a capital once acquired not only yields a more or less regular and secure income to its owner without effort or care, but if large enough, may leave a residuum after all wants have been supplied, and all inclinations indulged, to put out to compound interest. This will go on increasing and multiplying, and doubling and trebling and quadrupling itself, with hardly a thought or

effort on the part of the owner, merely by the simple process of accumulation alone.¹ By this means it may at last attain to quite gigantic dimensions, nor will it then receive any check. On the contrary, it will only augment the more rapidly and the more certainly. A mere farthing, as it has often been observed, put out at compound interest on the first day of the Christian era, would have yielded by now a value equal to that of some thousand millions of globes of solid gold of the volume of our earth. Since money does not produce money of itself, but only indirectly, and by its effects upon labour, this classic example serves to show how many arms and hands may be toiling for a single plutocrat. Thus while some, in spite of all their exertions, are sinking into the lowest slough of indigence, others are mounting, in spite of a life of idleness and inanity, to the dizziest heights of ease and affluence.

In this we witness the workings of the un-directed laws of nature. But God has given man reason to modify and to correct nature's waywardness for the general good of the whole

¹ We may say of great capitalists what J. S. Mill says of landlords: "They grow richer, as it were, in their sleep, without working, risking, or economising" (*Prin. of Pol. Ec.*, p. 547).

community. The *laissez aller* principle of some political economists, and the uncontrolled struggle for existence, pushed to their ultimate limits, are unjust, impracticable and iniquitous. The principle of non-interference is not only fraught with the most deplorable consequences, but is enforced in defiance of reason. It also forms a shameful exception to an almost universal practice in all other spheres of human activity. Man nowhere leaves any important decision to be settled by unreasoning nature.

The irrational beasts are guided by uncontrolled instinct alone. True. But, as a consequence, they perish in epidemics or starve to death, merely from want of forethought. They succumb to heat or cold where man, by virtue of his intelligence, may find against both a remedy and a safeguard. In these and countless other cases he brings his reason to bear upon the problem, and so far from leaving nature to take its own course, he is continually defeating its stratagems and hindering its effects by carefully laid plans, and the exercise of a wisdom and cunning bestowed upon him for that purpose by God. In fact the whole history of man is the history of his conflict with, and his victory over, unconscious nature. Then why, let us ask, should

he not apply his mind as earnestly to modify and control those tendencies by which nature blindly heaps more and more wealth upon the wealthy, whilst it sends the hungry still more empty away?¹

That the State has the right to interfere in all such matters is abundantly clear. It has more than a right : it has a positive duty. Being set over a nation for the welfare of that nation, it is bound to consider the commonwealth as a whole, before considering the privileges of any favoured class or individual whatever. This principle is in practice already conceded. It has been acted upon again and again in matters of less moment, though it has never been applied to the subject of wealth in any measure at all commensurate with the exigencies of the case.

Thus, should a railway be needed for the

¹ Here is a good parable in a nutshell, worth repeating, concerning Lord Derby and a collier. Wandering on some land belonging to Earl Derby, the collier there chanced to meet the owner of Knowsley face to face. His lordship inquired if the collier knew he was walking on his land. "Thy land? Well, I've got no land mysel'," was the reply, "and I'm 'like' to walk on somebody's. Wheer did tha get it fro'?" "Oh," explained his lordship, "I got it from my ancestors." "An' wheer did they get it fro'?" queried the collier. "They got it from their ancestors," was the reply. "An' wheer did their ancestors get it fro'?" "They fought for it." "Well, begad," said the collier, squaring up to the noble earl, "I'll feight thee for it!"—*Echo*.

general convenience of the public, the law finds or forces a passage for it, through parks and gardens, plantations and lordly estates, in spite of all the opposition, the resentment and the complaints of owners and lords of the manor. While acknowledging the rights of private property, it justly refuses to consider those rights as absolute. They melt away, and altogether cease to be rights, so soon as, and in so far as, they inflict a grievance or a serious inconvenience on the community at large.

So again, there are regulations that limit a man's freedom in dealing even with what is admittedly his own. A city merchant, however great or rich, may not erect a residence so that it projects beyond the building line, nor so as to rob a neighbouring house or villa of its light. A dog-fancier is hindered from keeping his pet hounds, even in his own yard, if their yelping disturbs the slumbers of his neighbours. A manufacturer may be compelled, for analogous reasons, "to consume his own smoke," and a soapmaker to place his inodoriferous factory beyond the city gates.

The existence of tolls, customs, taxes, dues, excise duties, wharfage and all other forms of imposts may also be cited to prove how conclusively the whole principle of Government

control and interference is recognised, wherever the public good or the welfare of the country demands it.

The question here suggests itself: Should not something now be done by those who are invested with the civil power to bring about a fairer distribution of the good things of this world? Life, especially at the present day, is a race for wealth, but unhappily a race in which the runners are most unequally matched. If we abandon the arrangement of this race to fickle Dame Fortune, or blind unreasoning Nature, we find that they almost invariably handicap the wrong men. Hence the State should step in and see that justice is fairly dealt out to all. It is the duty of the State at all events to try and diminish rather than increase existing inequalities.

When James Watt began to study the mechanism and the practical working of the steam-engine, he found that one of its great defects arose from an ever-varying distribution of the steam. When the engine's velocity was greatest the pressure of steam kept driving it on at a still more furious speed, and when its velocity was least the pressure was no greater than before. He determined to correct this, so he invented what engineers call "the governor".

This is an ingenious contrivance, applied to the engine for the purpose of controlling and regulating the supply of steam into the cylinder in such a manner as to render the action of the machine more efficient and economical, by causing it to move at a nearly uniform rate. The more the velocity increases the more is the supply of steam reduced. On the other hand, in proportion as the velocity slackens, the greater is the amount of steam supplied. In this way the action of the "governor" is always making for equality, and though, observe, *perfect* equality is never attained, all extremes are most effectually avoided.

The body politic, with its many subordinate parts and members, may not inaptly be compared to some such complicated piece of machinery. What we greatly need is some modern Watt to invent a similar contrivance for the better regulation of its various activities, and for a more equitable distribution of wealth, so that those who need most help may get most, and those who need far less may get less. At present precisely the opposite obtains. Instead of power (steam) being applied more abundantly where the necessities are greatest, and being reduced where there is already a plethora of affluence and wealth, it is just the reverse that happens.

Wealth and power not only attract more wealth and more power, but to such an extent as at last to strip weakness and poverty of their very last rag, and to leave them naked indeed.

Taxation based in some measure on the principle of Watt's "governor" would be a totally different and a far fairer thing than it is at present. For argument's sake, let us suppose that all taxation is represented by the income-tax.¹ Now it may seem very impartial to demand three per cent. upon all incomes over a couple of hundred pounds per annum, irrespective of persons and positions, but it is fair only in appearance. Such a tax presses far more severely on one whose income is £250 a year than on one whose income is £2,500. A man with wife and children and but £200 a year is not rich. He can hardly indulge in luxuries. If you dock his modest fortune of even £6 per year, it is to him a matter of some real consideration. If, on the other hand, you reduce a rentage of £10,000 to £9,700 by the same process, the tax is scarcely felt. To the modern Cræsus whose income is larger still the tax hardly makes any perceptible difference whatever.

¹ Merely to simplify the illustration of the principle we are supposing all forms of taxation to be resolved into one.

In spite of this, practically the same income-tax is levied upon all, however much the income may exceed actual requirements. There are quite a considerable number of persons in receipt of from £50,000 to £100,000 a year. Now the slice that the taxes cut off their golden loaf to throw to the starving poor still leaves them immeasurably more than they can possibly digest. To many it has seemed that a sense of true equity would require not an arithmetical, but what has often been suggested, a geometrical increase of the rate of taxation, or, at all events, a progressive income-tax of some kind, as the income swells.

If some such arrangement were come to, the effect would be, not to reduce all men to one dead level, which is neither desirable nor possible, but merely to establish a proportionality more equal and just than under existing arrangements, and to raise an effective barrier against the hideous extremes of wealth on the one hand, and of prostrate poverty on the other, which are a disgrace to our civilisation. Thus, a man might go on accumulating wealth, as heretofore, but with less and less ease; until, at last, a limit would soon be reached beyond which no one could pass, as the tax would reach a percentage which would

be prohibitive. In a word, it would prevent the extremes which are clearly undesirable, if not positively wrong. It would do for Society what the "governor" does for the steam engine.

There are undoubtedly many difficulties in the way besides the opposition of the powerful class who are so deeply interested. To ascertain precisely the value of a man's income is itself no easy matter. Many will not send in accurate returns, and honest tax-payers have often to pay for the dishonest; so that either a much more searching investigation must be instituted, which would be distressing and disturbing to privacy, or the tax would be unequally subscribed to.

But these and other difficulties should not be allowed to hinder a measure of general importance. It is the business of the State to labour for the welfare of the people, to face difficulties and to find a way out of them.

Another source of very natural complaint is that so much land is allowed to remain barren and unprofitable. Acres upon acres of cover, and miles upon miles of deer forests¹ and sheep walks exist in the United Kingdom,

¹ In the old Roman Empire, laws were passed which absolutely limited the extent of land that could be retained by any one citizen. Thus, *e.g.*, the famous Licinian laws decreed

representing an enormous amount of capital ill invested, and yielding nothing like what it might do under favourable management. A Parliamentary paper was issued in 1902 containing the report of a Departmental Committee on British Forestry. The report points out that there is in these islands an area of waste, heather, rough pasture, and land *out of cultivation*, amounting to 21,000,000 acres, on a large part of which afforestation could *profitably* be undertaken. "When an Englishman of title, in order to give himself the proud pleasure of affording grouse-shooting to his guests, turns into game preserves acres upon acres which might have supplied hundreds of human beings with food, we have a right to declare," says Gide, "that wealth has been culpably misused." It is, alas, too true! That such tracts of land should be more economically employed is imperative,¹ and the law should make provision

that: "1. Aucun citoyen ne pourra posséder plus de 500 jugères (about 300 acres) de *l'ager publicus*. Le surplus lui sera retiré et partagé entre les citoyens pauvres par lots de sept arpents." Similar laws were in force regulating the number of cattle and of labourers, etc. Historians agree that the grandeur of Rome was due to the Licinian code.—See *La Population*, par E. Van der Smissen, p. 72.

¹ "The total number of separate instances in which *la petite culture* in one form or another exists in Great Britain is estimated to be 1,300,000,"—*Statesman's Year Book*, 1893, p. 67.

for it in the interests of the nation. The rude earth in its virginal state was able to supply enough for all, so long as the sum total of its inhabitants was small. But the land surface does not, unfortunately, increase with the population.

The superficies of the earth to-day, when fifteen hundred millions are drawing their sustenance from its bosom, is no greater than when they were but as many thousands. The cultivation which sufficed a thousand or even five hundred years ago will not suffice to-day, still less will it suffice to-morrow. "Other times, other conditions."

It is strongly maintained, by those who are authorities on the matter, that even land which is cultivated might be rendered far more productive than it is at present. "If agricultural science," declares M. Charles Gide, "were as skilled as the science of mechanics in determining the theoretical returns, we might *doubtless* prove that the actual yield is not the hundredth part of what might theoretically be produced." Yet now England, in order to sustain on her limited territory her daily increasing population, is obliged to derive from imports more than half of her consumption of cereals, meat, drink, etc.

For a nation of hunters several square leagues are needed per head, for pastoral races some square miles: for agricultural peoples a few acres suffice, and the limit falls more and more as men pass from cultivating the land far and wide to cultivating it deeply and thoroughly, *i.e.*, from *extensive* to *intensive* cultivation. In China this latter mode of cultivation enables several men to subsist on the produce of a single plot of $2\frac{1}{2}$ acres of land.¹

"In Canada," writes M. Charles Gide, "it has been observed the native races that live by the chase require the enormous area of *fifteen square miles per head*, so that each man may continue to exist. Below this limit they are decimated by famine." Now the same would hold good in England to-day were the whole country one vast hunting ground, and the people but a race of sportsmen. If it can now, in common with other countries of Western Europe, support between four and five hundred persons on a square mile,² instead of having to lay out fifteen square miles for the support of one, it is chiefly owing to the immense propor-

¹ *Vide* Gide, p. 99.

² England's population per square mile in 1891 was 498; but in Belgium, where much less misery reigns, and the people are far more thrifty, the population was 539.5 to the square mile. ---*Statesman's Year Book*, 1893.

tion of land under cultivation, and the extraordinary advance of agricultural knowledge throughout the civilised portion of the world.

If, then, yet vaster multitudes of men are still to be supported by the produce of the same strictly limited territories of the world—and this from the very nature of things is necessarily the case—then agriculture must continue to improve its methods and become more and more scientific, and, what is more directly to the point, great landowners must be induced to bring under cultivation their unprofitable lands, and, if necessary, to have recourse to the resources of science and art, in order, little by little, to convert every barren and ungracious spot, so far as it is possible, into a crop-yielding surface.

To pretend that England is populated beyond its capacity¹ is to deck out fiction in the garb of

¹See an interesting letter in the *Pall Mall Gazette*, 22nd September, 1893, signed Wm. Sowerby, and concluding with the following paragraph: "General Cotton thinks that, with proper cultivation of the good land of the country, Great Britain and Ireland would maintain 150,000,000, and he is no mean authority, but a man of vast experience. One thing is certain, *mankind can live without the fine arts and abstract sciences, but cannot live without food*; and the best thing that can now be done is to set about thoroughly cultivating the land, not in a dilettante fashion, and thus render the country independent of foreign sources of supply, as unfortunately

truth. There is abundance for all, if resources were not withheld or left unemployed. The unproductive land in this country alone is estimated at 20 per cent. of the entire surface.¹ That is to say, one-fifth part of the country is failing to contribute its quota to the public market. M. Thiers declares that "the nations of Europe have not cultivated, in some cases, a fourth part, in others a tenth part of their territory; and that there is not a thousandth part of the globe (*la millième partie du globe*) that is really occupied".²

We do not affirm that landed property should belong to the State in any sense beyond that which already obtains. But on the principle of public utility as opposed to private whim, fancy or interest, we most emphatically contend that society has a right to claim that it should be turned to account and used for the ultimate benefit of all.

If therefore extensive areas of uncultivated, we are not at present. Then, if warlike calamities should overtake us, we would not be unprepared, and not have to rely upon the vigilance of doubtful cruisers and unwieldy ironclads, which the smallest accident renders worse than useless."

¹ A. Deconinck, *Le monde économique*, 1886, p. 80, quoted by E. Van der Smissen.

² Thiers. *De la Propriété*, 1880, p. 113.

or but half-cultivated land exist, the people, as represented by the Government, should exercise their authority and insist upon the owners gradually redeeming such land from sterility. If they will not, or cannot, then—and as a last resort—let the State make provision.

In this way, not only would the sum total of comestibles be increased, and their price in consequence lowered, but healthy occupation would be found for a large number of hands, the ranks of the unemployed would be greatly reduced, and men would be happier and more prosperous.¹

Another measure which the pressing needs of the situation seem to render imperative is State regulation of labour, at all events in such industries as will more readily admit of it. Take for instance labour in mines, pits, and other

¹“So dense is the population in some districts (of Switzerland) that in five parishes and two villages on the Lake of Zurich there are only (*i.e.*, A.D. 1850) 10,400 acres under cultivation of every kind, and 8,498 souls, being scarcely an acre and a quarter to each individual. Yet in no part of the world is such general comfort conspicuous among the people—an example among the many others which history affords of the great truth that it is vice or oppression (or, we may add, mismanagement and injudicious laws) which induces a miserable population, and that *no danger is to be apprehended from the greatest increase in the numbers of mankind if they are justly governed and influenced by virtuous habits.*”—A. Alison's *Hist of Europe*, p. 441.

subterraneous places, where the work is attended with almost every circumstance calculated to render it as hard and as irksome as it well can be. The light is dim and gloomy, the atmosphere impure, oppressive, and injurious, and the men are exposed to serious injury and even death¹ itself from escape of gas, from fire-damp, from sudden flooding of the pit, from falling in of the roof, the blocking up of passages, and other accidents of all kinds.² To engage in a life-long toil amid such gloomy, depressing surroundings without leisure for any kind of self-culture or education, or proper relaxation, or the amenities of social life, or even for the practice of religion, is both demoralising and debasing. It is more than that : it is unhuman and unchristian.

Were the hours shorter, but regular, several excellent effects would follow. In the first place a larger number of men would be employed. Where at present 600 men are working four-

¹ Mr. Burns pointed out that "in thirty years 31,466 miners had been *killed outright*, which gave an average of over 1,000 per annum ; whilst more than 120,000 were injured every year".—*Vide* Speech at Battersea, November, 1893.

² "In the United Kingdom there are more than 648,000 persons occupied in the coal industries, and 1,084,631 in the textile factories."—See *Statesman's Year Book*, 1893. A later estimate puts the number of persons employed in and about coal mines at 663,462.

teen hours a day, 700 would be needed to accomplish the same work in twelve hours, and 840 if they worked but ten hours per diem. So that in the first supposition 100, and in the second supposition 240, additional unoccupied men would find employment.

A second result would be an improvement in the condition—mental, physical and religious—of the working man. He would be less exhausted by his day's toil, and in every way healthier and stronger, and could do more effective work in a given time than he could do before. He would have more leisure to devote to family life, self-improvement, and the fulfilment of religious duties, and would be less like an unconscious wheel in some vast piece of machinery, grinding and wearing itself out in one ceaseless round of toil, till at last, without pity or commiseration, it is cast aside as unfit, to give place to another. We have heard men laugh at the bare notion of miners, mill-hands and others of that class devoting leisure to anything but drink and dissipation. But in so far as the laugh is justified, it is itself the most eloquent testimony to the demoralising nature of such occupations, as now carried on. Give the men opportunity; give them encouragement; put the facilities in

their way, and help to undo the mischief done, and they will speedily prove themselves of as good clay as ourselves, and open to the same influences. "It is shameful and inhuman to treat men like chattels to make money by," says Leo XIII., "or to look upon them merely as so much muscle or physical power."

"Wages are not to be regulated by prices, but to regulate them. The first charge on the products of labour is to be a 'living wage,' which is explained to mean, not a mere subsistence wage, but one which shall give the workman all the comforts and enjoyments to which he may fairly lay claim. Until this requirement is satisfied the employer must not think of profit. If he can satisfy it in no other way, he must raise the price to the consumer. This doctrine I hold to be a sound and healthy one, subject to a condition, etc."¹ This surely is common-sense.

There can be no doubt but that the State has the requisite power, if the will were not wanting, to immeasurably improve the condition of the great masses who are ground down under the weight of adverse circumstances. To intro-

¹ *The Positivist Review*, November, 1893, p. 198.

duce any such measures as are here baldly hinted at would be to make a demand on the *generosity*—or should we not rather say on the *justice*—of the ruling classes which we can hardly hope the majority would regard with cordiality.

As long as man's inborn selfishness and natural egotism retain possession of his heart, and as long as self-interest pleads more powerfully than national and common interest, so long will the wealthy and the powerful hesitate, hold back, and refuse to join any really practical and adequate movement inaugurated for the good of the people, if it involve any considerable pecuniary loss to themselves.

The influence of vested interests is too great. It results in the determined opposition of those who, on religious and philanthropic grounds, should be more than anxious to introduce a change in the legislature. The powerful and cultured leisured classes, who are generally credited with breadth of view, largeness of heart, and fairness of mind, should be the last of all to take undue advantage of the accidents of birth and the freaks of fortune, and the very first to hail any practical means of insuring a juster distribution of the good things of this world. If the precepts and maxims of the

Gospel found a more ready entrance into the hearts of our legislators, and if the true religious spirit of charity and brotherly love controlled their deliberations in a more appreciable degree, then their united action would inevitably lead to the establishment of laws and enactments which would gradually alleviate, if they did not actually end, the excessive miseries and sufferings under which so many millions of our fellow-countrymen at present groan without redress.

Thus it is easily seen that religion lies at the root and foundation of any permanent and radical cure. As sentiments of Christian charity become more diffused among the prosperous classes, and the equality of all men receives a more practical recognition, and as the awful responsibility of riches and the dignity of labour become more intimately felt, the national assembly will awaken to a keener sense of its duty, and will proclaim by its united action, as well as by its united voice, the universal brotherhood and fellowship of man.

Let the superfluous and sin-dieted man,
That slaves your ordinance, that will not see
Because he doth not feel, feel your power quickly:
SO DISTRIBUTION SHOULD UNDO EXCESS
AND EACH MAN HAVE ENOUGH.

—*King Lear*, iv., i.

Consult the following :—

Speaking of one's superfluity, St. Augustine says :—

“ *Aliena retinent, qui ista retinent.* ”

St. Chrysostom, speaking of Dives, writes : “ *Non enim quia dives fuerat, puniebatur; sed quia misericordiam non exhibuit* ”.

“ *Pasce morientem fame: si non pavisti, occidisti.* ”—St. Basil.

St. Augustine : “ *Superflua divitum, necessaria pauperum sunt; res alienæ possidentur, cum superflua possidentur* ”—(in Ps. 147).

“ *Ideo rogans dives non exauditur in tormentis, quia rogan-tem pauperem non exaudivit in terris.* ”—Aug., serm. 25.

“ *Ista vero injustitia magna est, ut egeat Dominus tuus, et habeat unde luxurietur servus tuus.* ”—Aug.

CIVIL PENALTIES FOR RELIGIOUS OFFENCES.

“Persecution is the deadly original sin of the REFORMED CHURCHES which cools every honest man’s zeal for their cause, in proportion as his reading becomes more extensive.”

—Words of the eminent Protestant historian, Hallam
(*Cons. Hist.*, vol. i., ch. ii.).

AMONG the many accusations hurled against the Catholic Church by her enemies, there is perhaps not one that appeals so strongly to popular prejudice, or that so fans the angry passions of men into a white heat, as that of being the persecutor of innocent men, guilty only of following their own conscience. The executions for religious offences, the burnings and torturings for heresy, and such-like incidents of past history, offer a splendid opportunity for any one who is anxious to produce an effect, and who is not over-scrupulous as to the means employed for the purpose. Such facts admit of a most graphic representation, and are often described in a manner so startling and realistic

that the incautious reader or listener returns from these excursions into the realms of past history fully persuaded that there never was an institution so cruel, diabolical and bloodthirsty as the Catholic Church, nor any body of men so ferocious and vindictive, or so imbrued with the blood of the saints, as her bishops and priests. The study of history, the careful research into old chronicles and dusty folios, will, however, enable the honest student to judge to what extent such accusations are well founded, and how far it is prudent and fair to judge of the past by the experiences of the present. Even in the matter of ordinary everyday speech it is well known how mischievous the simplest sentence may be made to look—and how heavily charged with offence—if separated entirely from its context ; and what a false and damning impression it may often convey, when the many circumstances which serve to explain and soften it are carefully suppressed. The same result often follows when we attempt to judge the nature and gravity of a law or a practice prevalent 500 or 1,000 years ago, apart from the circumstances and special social conditions of the time. The fallacy of judging an isolated case in one age by the criteria afforded us by another, may be illustrated from almost any

department of historical research. Let me point to the first illustration that suggests itself. If a simple country bumpkin, innocent of all knowledge of history, were told that a certain Prince X, living in the ninth century, dwelt in a house without chimneys, and without any glass in its windows, that he never wore linen, never read a newspaper, never smoked tobacco, and never even used a pocket-handkerchief, and that he drank mead or small beer for breakfast, and had never tasted tea or coffee—well, he would probably pronounce X to have been, at the very least, a very odd and peculiar fellow, whose mind had become unbalanced. Were he, however, sufficiently acquainted with the state of affairs in those far-off days to know that linen and newspapers, and tea and coffee, were wholly unknown, and that chimneys had not been introduced, and window-glass had not been invented, and that consequently not only Prince X but every prince did precisely the same, he might be less ready to accuse this particular prince of imbecility and madness. The same general principle may be applied to a more educated audience on the much more vexed question of civil penalties for religious offences. We must judge both of the penalties themselves, and of the manner in which they were inflicted, by a

study of the whole history of the period. "To put a person to death for heresy" is what no one would advocate to-day; and the idea is one most offensive to our sense, not merely of prudence, but even of justice. Still, whatever may be the horror and regret and shame excited in us by such executions—however strongly the harrowing accounts may affect us, with our modern, high-strung and sensitive nineteenth-century notions—we cannot in fairness judge the ninth century by the nineteenth. If we would look upon the whole question dispassionately, I think we must endeavour, however briefly, to trace to their origin the history of civil penalties for spiritual misdemeanours. We shall then find that even here the law of "development" and of "division of labour" has been at work.

Let us start with the old Hebrew dispensation. We find the offices of the spiritual and civil ruler united in the same person, or council. The law—a law, be it observed, of great severity—extends equally to civil and spiritual offences, and visits the one and the other with like pains and penalties. If in England at the present day one man wilfully kills another, he is sentenced to death, because he violates not only a law of God, of which—as such—the legislature takes no notice, but because he violates a law of

the land. But if two persons commit the most abominable sin of fornication together, they are left unmolested, because, from a mere legal point of view, no offence is committed against the law of the land by breaking the sixth (or what Protestants call the seventh) commandment of God, so long as each party is a free and willing partner in the offence. In fact, violations of the Divine Law are not considered. Under the old dispensation it was quite different; indeed this very crime was punished by the execution of both parties. In Mosaic times the death penalty was inflicted not only for murder, as with us, but also for other offences against the Decalogue—offences which nowadays are punished either very lightly or not at all. To break the Sabbath day, to utter a blasphemy, and (in certain cases) to bear false witness were among the crimes deemed worthy of death. Persons were executed for neglect of the ceremony of circumcision, for doing work on the Atonement Day (Lev. xxiii. 29), for anointing a stranger with oil, for eating leavened bread during Passover, for making holy ointment, and even ordinary perfume, if intended for private use; and for even touching holy things illegally. Such persons, according to the nature of the offence, were either hanged,

or burnt, or slain with a sword or spear ; or strangled, drowned, or crushed by great weights, or sawn asunder. On other occasions the culprit was beaten to death, pounded in a mortar, or precipitated headlong from the pinnacle of the temple or some other height. Thus the law took cognisance not only of civil, but also of religious offences, and visited any infringement of the law of God with even greater severity than an infringement of the law of man. With these precedents before them, it can hardly be a matter of astonishment that the early Christian communities also should walk in the footsteps of their predecessors, and enact punishments for religious offences. For they would naturally look to the chosen people of God as most worthy of imitation. Indeed this practice, so foreign to our modern notions, was common not only among Jews and early Christians, but even among professors of false religions and pagans themselves. In pagan Greece the State "punished every neglect of the due worship of the gods". In England to-day a man may not only live, but he may be, and often is, considered a respectable member of society, and, like Mr. Bradlaugh, may be even elected a member of Parliament and take his seat in the House, while openly denying the very existence of God ; but

in pagan Greece such unbelief was not tolerated even in regard to their false deities. Thus, as we all know, Protagoras was banished, and his works publicly burnt, because he declared that no one could know whether there were gods or no. In fact, he was what we should now call an Agnostic, of whom there are plenty in this country to-day. So—to take a yet more celebrated example—Socrates was condemned to drink the poisonous cup of hemlock because he “repudiated the gods of the State, and attempted to introduce new ones”.¹ In ancient Rome also the pagan religion was “a State religion in the full sense of the term”. ‘The kings were at once kings and judges and high priests: they in their own person performed the sacrifices offered in the name of the State; they superintended all religious ceremonies’ (p. 32). Transgressors of religious rules and ordinances were punished, and by a sort of excommunication excluded alike from all religious and political fellowship. Thus the right of punishing religious offences by civil penalties seems to have been a principle fully recognised and accepted, and acted upon from a very early age. And I think this to be a point of extreme importance, and to be clearly kept in view when

¹ Geffcken's *Church and State*, i., p. 29.

dealing with the much-vexed question of what we call religious persecution. For, if once it be granted that a man may be justly punished for a purely religious or spiritual offence, it will be easy to show that the Catholic Church applied the principle—a principle which she did not invent, but found in full force—with leniency and moderation. The only fault that can reasonably be found with her is, not that she punished violators of her commands too violently, but that she punished them at all. Once the principle be allowed—and it was in bygone days a principle everywhere admitted in practice, just as was the use of torture—you cannot accuse her of cruelty or undue severity in the manner in which she carried it out. The fact is—whether rightly or wrongly—we have given up the principle itself, and now establish our laws upon an entirely different basis, which, be it observed, is true not of the Church only, but of all forms of government. Formerly governments punished whatever was wrong, or at least whatever they thought to be wrong, which is not quite the same thing. Such a principle has now been abandoned. Now they take no notice, even of crimes which they acknowledge to be great *in themselves*, so long as they are not such as to interfere

with the welfare and liberty of others. Such is the teaching of all the most influential members of the school of modern thought. Take, by way of illustration, three such well-known writers and thinkers as Kant, H. Spencer, and Mill, and we shall see that they claim full liberty for every man to do just whatever he pleases, and to break every commandment of the Decalogue, a hundred times a day if he chooses, so long as no one else is made to suffer by it. Kant says : " Every one may seek his own happiness in the way that seems good to himself, provided that he infringe not such freedom of others to strive after a similar end as is consistent with the freedom of all ". " If my action (whatever it be) can co-exist with the freedom of every other, any one does me a wrong who hinders me in the performance of this action." So much for Kant. H. Spencer says the same, *viz.* : " Every man is free to do that which he wills, provided that he infringes not the equal freedom of any other man ". " The liberty of each is limited only by the like liberties of all." Mill, who made an elaborate study of the whole question, puts the new principle very clearly in the following words : " The sole end for which mankind are warranted, individually or collectively, in interfering with the liberty

of action of any of their numbers is self-protection. The only purpose for which power can be rightfully exercised over any member of a civilised community against his will is to prevent harm to others. His own good, either physical or moral, is not a sufficient warrant. . . . The only part of the conduct of any one for which he is amenable to society is that which concerns others. In the part which merely concerns himself his independence is of right, absolute." This doctrine, as Mill is careful to state, applies of course only to human beings "in the maturity of their faculties," and to societies which have attained some measure of civilisation. Thus, no one should be punished for simply being drunk, but he may be rightly punished if, when he is drunk, he impedes or molests his neighbour, or if, being a soldier or policeman, he is drunk on duty.¹ We have not yet reached the full development of this principle : for prize-fights, duels, and suicides, though purely voluntary acts of adult men, are still punishable by law ; as also gambling in private houses, and the sale of obscene literature, and many other acts, whose effects are limited to the agents themselves. Still the whole trend of modern legislation is in the

¹ Lecky, *Democracy and Liberty*, ii., pp. 101-2.

direction pointed out with approval by Kant, Spencer, and Mill, and their school. Now, to take these principles of legislation that find favour in this twentieth century, and to make use of them to interpret the laws of the ninth, which would not for an instant tolerate such principles, is ridiculous and unfair. Yet this is just what so many of our bitter opponents are constantly doing when dealing with religious persecution. In these days we teach a man must be given liberty to commit any excess he pleases, so long as he does not interfere with others. But, as Mr. Lecky very truly observes: "During long periods of the world's history it was considered the *duty* of the legislator to punish immoral acts, because they were immoral, and offensive to the Deity, altogether irrespective of their effects upon society" (ii., p. 106). Now, if this was the universally accepted principle, not merely among Christian but even among pagan nations of old, we cannot justly blame them for acting up to it. Our only interest now is to find out how far the popular and constant accusations of cruelty and barbarity in dealing with religious offences is justified by fact. Here again we must first compare penalties inflicted for religious offences with contemporary penal-

ties inflicted for offences in general ; and then we must consider whether there be any extraordinary excess in the punishment of spiritual, *as* compared with civil, crimes. There is no use comparing penalties inflicted for religious crimes in past ages with penalties inflicted in these days for civil crimes, for the whole spirit and tone of society have undergone an entire revolution. No doubt great severity was shown ; and men and women were subjected to the heaviest punishments for religious faults ; but this was simply because the whole penal code, in its application *to every department* of human misconduct, was barbarous in the extreme. If a spiritual fault was to be punished at all, no one can complain because it was punished with the severity which was common and universally prevalent in those days. It fell under the ordinary practice of the time. If all punishments were more severe in former times, then of course such additional severity affected religious offences, in common with all others. Now, that punishments were, as a matter of simple fact, far severer is undeniable. Take, by way of illustration, the heaviest penalty that man can inflict, the penalty of death. We shall find that the further we go back towards the beginnings of English history,

the more readily and willingly was it inflicted. To-day there is a strong wish, on the part of a large section of the community, to do away with the death penalty altogether. Still, as a matter of fact, in England it continues to exist, but only for two crimes, *viz.*, for high treason and for deliberate and wilful murder. Go back to the beginning of the nineteenth century, and we find that instead of two, there were ten counts upon which a man might be called to forfeit his life. Press your investigations further back still—*viz.*, to the close of the eighteenth century—and you will find there were then thirty-one distinct offences each of which was punishable with death; and at the beginning of that century there were considerably over a hundred. Sir William Blackstone, the author of the famous *Commentaries on the Law of England*, who died less than 150 years ago, observes: "It is a melancholy truth, that among the variety of actions which men are daily liable to commit, no less than 160 have been declared by Act of Parliament to be felonies without benefit of clergy, or, in other words, to be worthy of instant death". Such a state of things we can scarcely imagine to ourselves at the present day, when even a notorious murderer can reckon upon a certain number of sympathisers, and when

many would gladly abolish the death penalty altogether. Yet, if we are to make a proper study, and to judge correctly of the past, we are bound in simple justice to bear all these circumstances clearly in mind. Not only was death inflicted for offences for which nowadays one would scarce exact a fine, but it was often inflicted in a most barbarous way, with disembowellings, and quarterings, and other refinements of cruelty. John Fitzjohn, writing in 1577, remarks: "If you pick or steal above twelve pence, by the laws of this realm, it is death. . . . A cut-purse named John Salmon was executed on 7th January, 1612, for picking the pocket of one Leonard Barry;"¹ and Duke Frederick of Wurtemberg, being cheated by certain alchemists, "caused an iron gallows to be erected at Stuttgart, and had four of them hanged there one after the other".² A certain traveller (Rye, p. 89), returning to his own country after visiting England, writes the following account of his impressions: "For hanging, the English have no regular executioner; they take for this business a butcher, and whosoever is called upon is obliged to

¹ *Vide* Rye, *England as seen by Foreigners in the days of Elizabeth*, etc., p. 269.

² *Ibid.*, p. 88.

perform it. The criminal, seated in a cart, has one end of the rope tied round his neck, and the other fastened to the gallows. The cart then moves on, and the condemned wretch is left hanging. Friends and acquaintances kindly pull at his legs, in order that he may be strangled the sooner. . . . Above 300 are said to be hanged annually in London.”¹ Lecky tells us that the executions are said to have been 400 a year at the end of Elizabeth’s reign, though the population was under 5,000,000. If we hanged at the same rate in the present day, with our population now increased seven-fold, we should put to a violent death over 2,800 persons every year. Instead of this, the yearly average for the whole of England and Wales is only about twenty-five, *i.e.*, not one hundredth part of what it was under “Good Queen Bess”. Not only is the sentence of death rarely pronounced now, but when, occasionally, it has to be carried out, it is performed with as much privacy, mercy, and despatch as possible. In earlier times this was far from being the case, the criminal—even though he had been guilty of stealing but twelve pence—was executed publicly; nor was his pitiable state capable of exciting any signs of

¹ *Vide Rye, England as seen by Foreigners in the days of Elizabeth, etc., p. 110.*

commiseration from the thousands of onlookers. Indeed, L. Gronlund in his work, *Our Destiny*, tells us "that the populace would often hoot and shout at the miserable man, tied to the cart's tail, on his way to execution, and implore the hangman to drive fast in order to make him howl" (p. 113). In these days there is no offence whatever for which a man could be tortured to death by boiling. Yet as late as the reign of King Charles II. men were sometimes boiled alive for clipping the king's coin, though more commonly they were hanged. Nor was this an idle threat. John de Oxenedes, in his *Chronicles*, p. 253 (see the Rolls Series), says "that in the reign of King Edward, in London alone, the Jews and 'certain Christians' convicted of clipping the King's coin, and of coining, were hanged to the number of 281". It was death to break loose out of prison; it was death to commit a rape; arson was also punished by death, but it was by a more awful form of death, *viz.*, death by burning, so that, as the statute expresses it, "the offenders might be punished in like manner as they had offended". Sentence of death by burning was also passed on sorcerers, renegades, heretics, traitors, and persons guilty of unnatural crimes. If we bear in mind the habits and customs of

those days, and the manner in which even trivial offences were punished, we shall hardly accuse Catholic governors or even theologians of any extraordinary cruelty in the punishment they allowed for heresy. Let us, by way of illustration, institute a comparison. The Rev. W. Denton, in his extremely interesting volume on *England in the Fifteenth Century*, tells us that as late as in King Edward's reign "persons convicted of robbing in a dwelling house were executed unless the goods taken were below twelve pence in value"—unless, indeed, the thief were a minor, "or poor and hungry" (p. 26). Such was the law of the land, here in England, in the fourteenth century; now, it was shortly before this century that the great theologian, St. Thomas, lived and taught. A great deal is and has been said, and I have no doubt will be said, about his teaching regarding the treatment of heretics. He allows that a heretic may be punished—but, by a heretic he means one who has been baptised a Catholic, and has lived as a Catholic, but who has turned his back on the Church, and who is contumacious and persistent in his heresy, and not a man, like many Protestants of to-day, living and acting in good faith. Speaking of such a formal heretic, he teaches that he may be

delivered over to the secular arm, and the State may lawfully punish him even by death.¹ This sounds very awful when heard amid our present surroundings, but it would have sounded sensible and just enough, even to any one of us, had we been living in that century. For, what really is the force of the words? It is just as though he had said, to violate faith with God, to break one's baptismal oath, to reject the teaching of the Church divinely appointed by Christ, is a very sad and shameful and scandalous act, and likely to produce a bad influence on others, and to lead them into error. If, therefore, such a man refuses to amend; if he is obstinate, perverse, and contumacious, let him be punished. But

¹ The reasoning of St. Thomas, which is founded on a comparison, seems most just. This is what he writes: "*Multo gravius est corrumpere fidem, per quam est animæ vita, quam falsare pecuniam, per quam temporali vitæ subvenitur. Unde si falsarii pecuniæ statim per sæculares principes juste morti traduntur, multo magis hæretici statim ex quo de hæresi convincuntur, possunt non solum excommunicari, sed et juste occidi* (2, 2 Q. xi., A. iii.). However, even this statement refers only to subjects of the Church, *i.e.*, to such as have been Catholics. The Council of Trent itself has laid it down that: "*Ecclesia in neminem judicium exercet, qui non prius in ipsam per baptismi januam ingressus est*" (Sess. xiv., can. 2). These authoritative words should put an end to the popular and oft-repeated assertion, that the Catholic Church would persecute heretics and tyrannise over Protestants if she only had the power and the opportunity. Nothing is so contrary to the truth.

how? Well! Let the State treat him no more severely than it would treat a man who has stolen a shilling; let a punishment be meted out to him such as one of His Majesty's judges is accustomed to mete out to a man who has robbed his neighbour of twelve pence. No more. When expressed in this way, the sentence does not look so terrible. Yet, surely the only reasonable way of estimating the severity of a sentence is by a process of comparison; and assuredly, when the dictum of St. Thomas is stated as above, it wears a very different complexion (and, let me add, a very much truer complexion) to that which it wears when some member of the Protestant Alliance drags the sentence from its thirteenth century setting, and displays it in a brand-new twentieth century dress, and thereby strives to excite the minds of our countrymen against the Church. No. Let us be just. We must judge each period by the manners and customs and principles of that period, and by the views, opinions, and sentiments universally accepted and approved at the time. If we do this we shall find that the Catholic Church has nothing to be ashamed of, nothing to excuse, nothing to apologise for. She adapts herself to her environment, and being destined to remain while human institu-

tions rise and fall and disappear, and to lead men on in the way of truth, and virtue, and honesty, to the very end of the world, she must vary her discipline while retaining her faith. Protestants think—or at least some of the more bitter ones pretend to think—that the Catholic Church, if she had the power, would persecute as Catholics, and Protestants, and Pagans, all persecuted of old. Such a view shows an utter want of appreciation of the lessons taught by history. The use of physical force as a means of instilling faith was once in vogue ; yes, and so was torture as a means of extorting confessions from political offenders ; and so, too, was branding with a red-hot iron the foreheads of labourers captured after leaving their rightful masters. If one of these practices may return, so may all. But they cannot. They are dead and past, and as extinct as the dodo ; and no human power can resuscitate them, or galvanise them into life again. Progress is the very mark and sign of life and civilisation ; you cannot stay the hand of the clock, nor turn back the mighty stream of Time and bid it flow again in its former tiny runnels. We birch the child and flog the rebellious boy who idles or misconducts himself ; but when he is a man we appeal to his reason, and invoke his sense of

truth and justice. So it is with the human race : in its infancy we apply methods with which we afterwards dispense, and we cease to use—or even to wish to use—means, valuable enough to men in a more barbaric, rude, and simple age, but now grown worse than useless. We are all affected by the spirit of the times, Catholics and non-Catholics alike : and modern opinion no more thinks of re-introducing the rack, and thumbscrew, and scavenger's daughter, than it thinks of re-introducing glassless windows and chimneyless houses, or of discarding the easy Pullman-car and express train for the old springless wooden carts in which our ancestors journeyed at painfully slow stages from one part of England to another. No ; religious persecution in civilised lands is buried, and without hope of any future resurrection. Here it is only fair to say that if we consider, firstly, the comparatively short time that Protestantism has existed ; secondly, the comparatively limited area over which it has held sway ; and, thirdly, the comparatively few opportunities it had of using its power, we shall have to admit that Protestantism has practised far more cruelty and exercised far more severity than the Catholic Church, without even the excuses that the Catholic Church can put forward. But on such

a point perhaps it were better to let a Protestant be our spokesman. The Anglican historian, Mr. Lecky, says :—

“In Germany, at the time of the protestation of Spires, when the name of Protestant was assumed, the Lutheran princes absolutely prohibited the celebration of Mass within their dominions. In England a similar measure was passed as early as Edward VI. On the accession of Elizabeth, and *before the Catholics had given any signs of discontent*, a law was made prohibiting any religious service other than the Prayer-book ; the penalty for the third offence being imprisonment for life, while another law imposed a fine on any one who abstained from the Anglican service. The Presbyterians, through a long succession of reigns, were imprisoned, branded, mutilated, scourged and exposed on the pillory. Many Catholics under false pretences were tortured and hung. Anabaptists and Arians were burnt alive. In Ireland, the religion of the immense majority of the people was banned and proscribed. In Scotland . . . the Presbyterians were hunted like criminals over the mountains. Their ears were torn from the roots. They were branded with hot irons. Their fingers were wrenched asunder by the thumbkins. The bones of their legs were shattered in the boots. . . . Nor was it only the British Government, or the zealous (Anglican) advocates of Episcopacy, who manifested this spirit. When the Reformation triumphed in Scotland, one of its first fruits was a law prohibiting any priest from celebrating, or any worshipper from hearing Mass, under pain of the confiscation of his goods for the first offence, of exile for the second, and of death for the third ” (p. 42).

The tortures and the punishments of the Inquisition in Spain and elsewhere were very much less cruel than those of London or of

Edinburgh. The whole circumstances were also totally unlike.

“Catholicism,” says Mr. Lecky, “was an ancient Church. She had gained a great part of her influence by vast services to mankind. She rested avowedly upon the principle of authority. She was defending herself against aggression and innovation. That a Church so circumstanced should endeavour to stifle in blood every aspiration towards a purer system was indeed a fearful crime, but it was a crime which was not altogether unnatural. She might point to the priceless blessings she had bestowed upon humanity, to the slavery she had destroyed, to the civilisation she had founded, to the many generations she had led with honour to the grave. She might show how completely her doctrines were interwoven with the whole social system, how fearful would be the conclusion if they were destroyed, and how absolutely incompatible they were with the acknowledgment of private judgment. These considerations would not make her blameless, but they would at least palliate her guilt. But what shall we say of a Church that was but a thing of yesterday, a Church that had as yet no services to show, no claims upon the gratitude of mankind; a Church that was by profession the creature of private judgment, but was in reality generated by the intrigues of a corrupt Court, which nevertheless suppressed by force a worship that multitudes deemed necessary to their salvation, and by all her organs, and with all her energies, persecuted those who clung to the religion of their fathers? What shall we say of a religion which comprised at most but a fourth part of the Christian world, and which the first explosion of private judgment had shivered into countless sects, which was, nevertheless, so pervaded by the spirit of dogmatism that each of these sects asserted its distinctive doctrines with the same confidence, and persecuted with the same unhesitating virulence as a Church which was venerable with the homage of more than twelve centuries? What shall we say of men who, in the name of religious liberty, deluged their land with

blood, trampled on the very principles of patriotism, calling in strangers to their assistance, and openly rejoicing in the disasters of their country, and who, when they at last obtained their object, immediately established a religious tyranny as absolute as that which they had subverted. These were the attitudes which for more than a century Protestantism uniformly presented; and so strong and so general was its intolerance that for some time it may, I believe, be truly said that there were more instances of partial toleration being advocated by Roman Catholics than by Protestants.”¹

The gist of the foregoing remarks may, I think, be summed up in the following propositions: (1) In former days the State judged that it was authorised to punish evil, because it was evil, and paid little attention to other considerations. And in this respect there was really nothing to choose between a Protestant and a Catholic State. Even Hallam himself, though by no means favourable to the Catholic Faith, has the justice to remark that “At the end of the sixteenth century the simple proposition that men for holding or declaring heterodox opinions in religion should not be burnt alive, or otherwise put to death, was itself little less than a sort of heterodoxy; and though many privately must have been persuaded of its truth, the *Protestant churches were as far from acknowledging it as that of Rome*”.² (2) In these days, on the contrary,

¹ Lecky, *History of Rationalism in Europe*, vol. ii., p. 51 *et seq.*
Hist. of Lit., i., 559.

the State considers itself incompetent to deal with evil for its own sake. It now conceives its duty to be limited to the repression of whatever may interfere with the rights, liberties and just comfort, convenience and well-being of others. In so far as a man does not molest or interfere with his neighbour, the State will not touch him.

(3) Granting that the former principle was in force in earlier times, and that the State had the right of inflicting civil penalties for religious offences, we must admit that she did not exercise any excessive or undue severity ; she dealt with religious and spiritual offences with only the same rigour with which she dealt with every other class of offence, whether against persons or property. Then there came a change and a reaction, and the civil authorities not merely deemed it right and expedient to leave every man to follow his own religion unmolested, but, in some instances at least, went so far out of their way as to help and subsidise even the worshippers of false gods. So that we are left to contemplate the British Government, in one age, putting English men and women to death for assisting at Mass, or for merely harbouring a priest ; and, in another age, we marvel to find her recognising and protecting the rites of idolatrous worship in her Indian possessions.

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While in the sixteenth century she confiscated the property of Catholics, and reduced them by fines into a state of beggary, for acknowledging the spiritual authority of the Pope, in the nineteenth century she actually helped by taxation to defray the expenses of the pagan temple worship. Mr. Lecky tells us that "The worship of Juggernaut and many less important shrines was subsidised, and the Government exercised a superintending care over the management of the temples, and over the vast endowments which had been from time immemorial connected with them ; prevented the misappropriation of their revenues ; sent soldiers and police to protect and to dignify idolatrous processions, and contributed very largely, by wise and honest administration, to the prosperity of the great religious establishments". Happily for our reputation as a Christian country, "in 1833 the Home Government was induced to order the abolition of the pilgrim tax, and the discontinuance of all connection between the Government and idolatrous ceremonies".¹ This one example will serve to show how far the changing pendulum of human opinion and expediency has changed, and how little likelihood there is of a revival of rack and thumb-

¹ *Democracy and Liberty*, by W. E. Lecky, p. 445.

screw. Still, the law, as now in force, has not yet reached that special degree of perfection contemplated by Herbert Spencer. Religion does still enter into the consideration of the Legislature ; and several positions and posts of importance are absolutely excluded from persons professing the Catholic Faith. We have another instance of civil penalties for purely spiritual offences in the laws that regulate an Englishman's Sunday. Is it not indeed a violation of the pet principle of freedom, as now conceived, that a man who wishes to work on a Sunday is not allowed to? That a struggling shopkeeper should be forbidden, however much he may desire it, to open his shop? That a farmer should be prevented from reaping his own harvest when every fine day is of vital consequence to his interests? That poor men should be excluded by law, on their one weekly holiday, from their place of meeting and refreshment ?¹ Or that it should be criminal for a man to shoot a pheasant or partridge on his own grounds upon Sunday or Christmas Day, though he may shoot wild-fowl, or woodcock, or snipe, as these birds are not included under the legal definition of game ; and though no restriction is imposed on Sunday

¹ Lecky, vol. i., p. 421.

fishing? ¹ All this shows that the question of religious offences is an extremely delicate one, and difficult to handle, and that even in these days its intricacies have not been entirely unravelled nor its difficulties wholly solved. If, however, the present chapter has helped to throw any additional light on the matter, and especially if it has induced any one to think more justly and more kindly of the mistaken severity exercised by England, in common with other nations, in the past, I shall have attained my purpose, and shall rest satisfied and content.

¹ Lecky, vol. ii., p. 99.

INTELLECTUAL OPPORTUNITIES, PAST AND PRESENT.

A CONTRAST BETWEEN THE SEVENTEENTH
AND NINETEENTH CENTURIES.

PERSONS living at the present day amid all the conveniences and amenities of modern life, surrounded by every comfort that human wisdom and industry can devise and every luxury and gratification that human ingenuity can suggest, can form but a very poor and inaccurate idea of the state of society as it existed a few centuries ago. Men in prosperity and abundance are little wont to notice, much less to sympathise with, those in poverty and distress. Once in the land of promise, once safe amid its pleasures and delights, and the memory of the long and tedious journey through the arid desert that led to it languishes in the mind, and is soon lost in oblivion.

To a great extent this is true of ourselves. We are living in the enjoyment of favoured

times, in an age of wonderful material prosperity. We have our share, too, in all the improvements of the hour. The advance of science has made itself felt in every corner of the globe, and reaches the meanest of the poor as well as the most powerful of the rich, dispensing its blessings and shedding its light on every inhabitant of the earth. We can travel from the east to the west and from the north to the south with comparatively little expenditure of time or money, and with a facility and a security not only utterly unknown, but utterly inconceivable to our ancestors. The stirring events and momentous occurrences enacted in the most distant and unfamiliar regions of the globe we may discuss and comment on, almost as soon as they take place, at the breakfast-table over our tea and toast, or in the reading-room of a neighbouring club. The dusky natives of the Soudan or the Congo grin out upon us in their natural colours from the illustrated papers, and the history of their manners and customs, their successes and overthrows, are chronicled by competent writers on the spot. Indeed, more than this, our very wishes may be expressed, our very sympathies made known, to friends and relations, whose hands we have not grasped for many a long

year, and who are living at our extreme antipodes.

Such a state of things, indeed, could hardly have entered into the thoughts of the most speculating of our ancestors, or have been considered anything more than the wildest dreams by those who, but a few generations back, were traversing England along the rough, uncared-for roads in their rude, cumbersome coaches, winning renown on many a bloody field with battle-axe and cross-bow, ploughing through the treacherous sea in great wooden hulks, or feeling their way about the tortuous, unilluminated streets and alleys of their native towns.

Though such vast improvements have been won for us of late years, most of us are well content to enjoy and make use of them, without troubling ourselves much about the state of countries in general, or even of England in particular, in less favoured times.

A steady and continuous development, perceptible, indeed, in well-nigh every department of civil life, but especially apparent in the domain of knowledge, has been rapidly changing and modifying, as well as extending, the intellectual condition of the world by increasing the sources and channels, the means and instruments, whereby all kinds of information

are prepared and served up for the public taste.

The wealthy and highly-refined man of the world, as he sits in his sumptuous apartment, adorned from ceiling to floor with the varying productions of beauty and art, presents a picture it was never given to the gentry of England to contemplate even as late as under the Stuarts. The numberless rows of richly-bound tomes, arranged line after line along the entire length of his well-stocked shelves, or even the choicer specimens in polished calf and morocco, gilt and adorned in every variety of form and pattern, that lie about in studied negligence amid the bouquets and ornaments on the drawing-room table, would present a strange, unusual image of affluence and prodigality to men living at a time when a single volume, now sold for a few shillings, would cost more than the horse and entire accoutrements of a cavalier !

Though our sturdy ancestors might find fault with the delicacy and softness which prosperity invariably breeds ; though lips might curl in lofty disdain and stout hearts throb in virtuous indignation at the effeminacy and degeneracy of the present generation, sunk almost into the sensuous, easy condition that heralded the final

overthrow of pagan Rome : yet such sentiments of disgust would be powerless to repress expressions of wonder and admiration at the means and appliances that genius and skill have elaborated in the interests of human power and human happiness, enabling man to utilise forces of whose very existence he was for so long profoundly ignorant, and to turn to his own benefit so many of the latent powers of nature, stealing, as it were, each year some fresh secret from her bosom—such, for example, as the electric fluid, enabling him to knit together, so to say, the entire universe in one vast whole with a complete nervous system of cables and wires, along which the electric current darts with a lightning speed with news of war or messages of peace, with words of weal or of woe, revealing the fluctuating fortunes of friend or foe, depression or prosperity in trade, down to the least important events of our more immediate neighbourhood, the last speech of the premier, or the final decision of the law court.

Let us, before going any further, pause for a while, and cast our eyes back two or three centuries, and visit England as it then appeared. We must confine ourselves to the subject of education chiefly, and to what more immediately touches education, since we should get

too much involved or else be compelled to prolong the chapter beyond its natural limits.

The art of printing had, of course, been invented at the epoch we are considering, but the process was so laborious and so imperfect that but very few books were struck off in the course of a year. In towns and villages libraries and literary clubs, such as we know them, can hardly be said to have existed at all. None of the free public libraries and similar institutions to encourage study, so many and so various nowadays, were then born. The coffee-houses were the nearest equivalents, and these, indeed, were the chief centres of information and general knowledge of all kinds. To them the curious and inquisitive, grey-headed politicians and learned doctors, artful schoolmen and men of letters, used to flock in large numbers, to gather up the scraps of information and the floating tales and rumours always to be met with in large cities.

There were political coffee-houses, literary coffee-houses, Tory and Whig coffee-houses. Each section, indeed, of the community possessed its own particular *sanctum sanctorum*, with its leading man, who gave the tone and character to the place. Here they would spend many an interesting hour gathered round the

hospitable hearth, and launch out into animated discussions and harangues on whatever subject might be uppermost in the popular mind, or enter into grave debates on matters of interest and importance, whether in religion or politics, Church or State. The newspapers, if we may dignify them by such a name, consisted of a single small sheet. Whenever they made their appearance—which was rarely more than once or twice a week—they were seized with avidity and handed round with absorbing interest from one to another. As might well be supposed, they gave but very scanty and uncertain information; just sufficient, it would seem, to stimulate curiosity, and leaving abundant room for surmises and conjectures and endless conversation. In referring to these so-called newspapers we speak, of course, only of the larger cities and towns; for as to provincial newspapers—well, they simply did not exist! Persons living at a distance from the metropolis were almost entirely dependent upon the professional letter-writers for an account of the events of current history, which, it may be added, were often grossly misrepresented by them, and drawn up in a party spirit, and coloured and dressed so as to suit as far as possible the special bias and sympathies of the reader. Magazines, whether

philosophical, speculative, literary, scientific, geographical or religious, it is hardly necessary to state are of a later date.

Books were, of course, seldom seen in any large quantity. As late as the latter end of the seventeenth century, a man was considered well off if he possessed as many as a boy will now carry home from school in his satchel. There were certainly a few well-furnished book-shops in the capital, the constant resort of the intellectual world. These administered in some measure to the urgent wants of the community, supplied food for thought and matter for discussion. In the country, however, things stood on a very different footing, and the country squires and landed gentry who lived on their estates were far worse off in this respect than the poor farmer, or even the poor farmer's man is, at the present day. No library, book-shop, or literary club of any kind existed in rural districts at all. The few well-thumbed books or papers which found their way from the capital months, sometimes years, after issue were all that the country gentry had to throw a ray of light upon the doings and events of those stirring times. These they conned with unwonted earnestness and treasured with zealous care ;

but the more general and profounder subjects of thought they had to leave to the universities, where almost the whole intellect of England was gathered. There was hardly even a clergyman of note or prominence but at the universities or in the capital. Barrow, Cudworth, More, South, Aldrich, Sherlock, Temple, Tillotson, Stillingfleet, Fowler, and, in a word, all the most illustrious minds paraded their learning, as well as acquired it, at Oxford or Cambridge, or in one of the chief cities, where there was abundant scope for exercising their intellectual faculties and sharpening their wits.

It was far otherwise in the rustic villages and the more thinly populated country districts. The Sabbath bell, as it rang out its early summons over shady hamlets and moss-grown cottages, gathered the simple people round a minister almost as simple and unlettered as themselves. Here he would speak to them with pathos and enthusiasm, if you will, but in a language which had acquired little elegance or polish from study, and little force from theological or philosophical lore. We are, of course, speaking of the Protestant divines, as the number of priests then in England was small, and even these could exercise their vocation only by stealth. But to proceed : It would

be unfair to put down the deplorable ignorance of rural ecclesiastics entirely to a paucity of books or to the absence of skilled professors, since their poverty was so great that, had the opportunities been given them, they could ill have spared the time or found the necessary leisure for the cultivation of their intellect. Their social position seems to have been very different from what it is now. They resembled rather servants or retainers than messengers of the Eternal King and propounders of the doctrines of Heaven. When acting as chaplains they were expected to fulfil the most menial offices. To chop wood and pile it on the hearth, to carry parcels ten or twelve miles, to rub a horse down, feed the pigs, or load a dung-cart was nothing out of the way. Should they leave the family with the hopes of ameliorating their condition or extending the field of their labours by taking a cure, they were very little better off. The taking a wife was often the only condition of their getting a living which, just enough for one, was quite incapable of supporting two, to say nothing of the numerous progeny that might result from these unions.

When the natural teachers of the people, when those "whose lips should guard wisdom" were struggling on so low a level, when the

very clergymen were so poorly supplied with works of theology, history, philosophy or literature, we may guess the mental condition of the great masses. How deficient their education, how neglected their training, how stunted and dwarfed their mental energies! There was scarcely a knight in the shire whose entire library would not have fitted comfortably in a moderate portmanteau, or a single squire who had as many books as a literary man nowadays would take with him on a month's holiday at the seaside. Their exercises indeed were more physical than intellectual; their pointers and setters, their flint-guns and fishing-rods, their falcons and horses, were oftener before their minds than the ancient literature of Athens and Rome, or than even the more homely and modern works of English geniuses, whether in prose or verse. Their children, nurtured at home, grew up for the most part in the society of keepers and grooms and other menials, or if sent for a few years to school soon returned home to lose what knowledge and experience they had gained, amid the wild diversions and boisterous pleasures of those exciting times. The scant means of travelling and the execrable roads, in places often quite impassable during winter, not to mention the actual danger to life and limb,

were little calculated to entice them from the security and comforts of home to the asperities and inconveniences of distant and unfamiliar parts of the country, so that very many passed their lives without ever having trodden the streets of London or having once gazed on its architectural beauties. Their ideas, their notions of things, their views and opinions on questions of the day, were consequently all characterised by bigotry, narrowness, and prejudice. They preserved the decisions, judgments, and even the feelings and sympathies handed down to them, with jealous care, almost as they would an heirloom, and, however biassed and incorrect, seldom suffered them to be adjusted by the help of study or modified by the experience afforded by travel and intercourse with the world.

We might go on expatiating on the state of the still lower orders, and compare their present condition with the past ; but, as space is limited, what has been said may be considered sufficient for our purpose. We have referred to the past, let us now make a few remarks on the present. Before doing so, however, we wish to answer by anticipation a possible objection that may occur to some of our readers. They may urge, perhaps, that it is difficult to credit the truth

of the picture just drawn as to the state of general ignorance so short a time ago as the seventeenth century, for that we still possess the writings of scholars, poets and diplomatists, and preachers who lived at that time and were men of eminence. Look, they will say, at Cowley, who died in 1667 ; look at Sir John Denham, who died in 1668 ; look at Edmund Waller ; look at Milton, at Chillingworth, Tillotson, Cudworth, Dr. Robert South, and some others who flourished in the same century. In reply to this we simply say that we are not at all attempting to make out a case of universal ignorance. On the contrary, we feel very strongly that it must be admitted that men of unusual attainments and quite exceptional abilities gave a brilliancy and an *éclat* to the reign of the Stuarts.

Nor have we forgotten such illustrious names as those of Bacon, Hobbes, Locke, Boyle, Newton, and Harvey, and their deep researches into mental and natural philosophy. All we are contending is that knowledge was not *diffused* ; that the culture of the higher faculties of the soul was not *general* ; that the sources of mental improvement were closed to the *masses*, and that a small class had the entire monopoly of what has since become, in a large measure,

common property. It must be borne in mind, indeed, that all who attained any literary excellence were residents of universities, and other seats of learning, or, at all events, of large cities where facilities for self-culture and opportunities of mental discipline were, comparatively speaking, abundant. They were also, for the most part at least, men of means and masters of their own time. Thus, to take a few instances : Cowley, who was the son of a prosperous grocer, had the benefit of studying both at Cambridge and Oxford ; he then retired to the charms of Arcadian solitude, where he assiduously cultivated the Muses till he died. Sir John Denham was likewise in easy circumstances, and prosecuted his studies at Oxford, besides having the advantages of having travelled in France—an unusual thing in those days. The Archbishop of Canterbury, the famous Protestant apologist, passed his youth at Cambridge, and, as his position implies, was not stinted in wealth. Cudworth, too, not only studied at Cambridge, but professed Hebrew there for some thirty years. Edmund Waller received his polish and refinement at the king's court, and inherited £3,000 a year, which was left him when yet a mere child. Milton, as we all know, was sent to school at St. Paul's, London, and from there

to the University of Cambridge, where he took his degree of M.A. ; he had the privilege of visiting France, Italy, and Switzerland, too, and received a salary of £300 per annum as foreign secretary. It is unnecessary, however, to go on enumerating such particular instances—for such we are compelled to consider them.

Enough has been said to enable us to take, we will not say a very *full*, but at least a very *fair* view of the state of England (intellectually) two or three centuries ago. The wonderful march onward that has marked the past hundred years must be evident to all. Science and experimental knowledge of all kinds have wonderfully advanced and extended their boundaries, and new discoveries have recently been lit upon, which have proved of incalculable service in perfecting old vehicles of thought and in inventing newer and improved ones. Take, as an illustration of what is meant, the modern printing press. What a contrast to the old, cumbersome, awkward machine of earlier days ! With what marvellous expedition, accuracy, and neatness it turns out volume after volume ! How perfectly and faultlessly it forms every letter and even every stop ! Or consider the system of the post-office. To what wonderful results has it not led ? It enables us

to read detailed accounts of the most interesting events that have taken place in the most distant points of Great Britain within a day or two of their occurrence. It keeps us *au courant* with the political, social, and literary world; it enables us to keep pace, as far as may be in these days, with the inventions, discoveries, and improvements in every department of science. We can learn not only the minds of great men and their intellectual bias, not only *who* have written and the subjects they have dealt with, but their style and method, and what the world thinks of them. Each man—and each woman for the matter of that—who has what is called a view on any subject can find abundant opportunity now of ventilating it. Papers and pamphlets and magazines, reviews and puffs and prospectuses, in hopeless variety and overwhelming quantities, flood our tables day after day.

The number of books is inconceivably great, the field of literature vast as ocean. Every day new volumes and new editions are issuing from the teeming press, and each year in an increasing ratio. Books upon books: on theology and religion, on science and philosophy, on history and biography, on painting and poetry, on travel and adventure, are showered down

upon us in alarming profusion. Nor is this all : novels and romances and tales for the million add their tributaries to the great stream, with treatises on cooking and dressing, on letter-writing and love-making, and heaven knows what besides. "There never was a time when information was scattered about so freely, when every kind of knowledge was brought within men's reach. We have books on everything, and little treatises to explain these books. It is pleasant, of course, to think that where there are so many hundreds of writers there must be many thousands of readers. Publishers are, after all, commercial men, and carry on their business *on trade, not* on philanthropic, principles. If books are printed they are sold, and we take comfort to ourselves that the age we live in is an age of readers." And this is no doubt true. People do read more now than formerly. We have many readers, but have we many students? Have we many men who care to do more than read, who strive to master any study, to sink to its foundations and understand its first principle?

Let us consider this matter briefly and see the practical result of the facilities of the present day. Let us see if we are really quite as well off as we imagine ourselves to be. Though in many

respects we are of course in a far more enviable position than our ancestors ; though indeed we may safely say that, on the whole, our age has made an undoubted step forward, yet, if we consider attentively, we are very much mistaken if we shall not find that, with all our boasts and self-complacency, we are nevertheless labouring under certain disadvantages and drawbacks from which our predecessors were in a great measure free. We will point out some, such as they occur to us.

First. Although, of course, our knowledge is more vast and extended, it is yet not so certain and well-founded. We know much because we read much, but our information is second-hand. Time will not permit us to sift and winnow an author's words, or by actual experiment to make his knowledge our very own. We must take his dicta on faith. We must accept his statements in great part for no better reason than because he has made them. To master every science and examine every theory has long since become impossible. This could be done, at least to a very much greater extent, a few hundred years ago. Besides, men's minds then ran in grooves much more than they do at present. The philosopher was content to remain a philosopher, the poet

a poet, but now each man would rather skim over every subject than master one. It is the present fashion of the world, and she is imperative in her demands. One must know something of everything, and be able to converse on every conceivable topic. One must know something about the writers of the day, and have read or peeped into their works, even if they be nothing more than mere novelists or poetasters. It thus becomes impossible to be profound in any subject. Do what we will, we can hardly keep pace with even the current literature, with the reviews and periodicals and "weeklies" that surround us. Add to this the literature of other countries—of France, Belgium, Italy and Germany—which flows into the country with every tide. Think, too, that all these must find readers and purchasers. The more we reflect, indeed, the more obviously it appears that knowledge generally—knowledge in the masses, knowledge such as we find it in the gay men of the world or the young ladies of the period—is shallow, superficial and frothy. We will quote in support of this view no less an authority than that of Cardinal Newman:—

"I will tell you," he says, "what has been the practical error of the last twenty years : not to load the student with a mass of undigested knowledge, but to force upon him so much that

he has rejected *all*. It has been the error of distracting and enfeebling the mind by an unmeaning profusion of subjects ; of implying that a smattering in a dozen branches of study is not shallowness, which it really is, but enlargement, which it is not ; of considering an acquaintance with the learned names of things and persons, and the possession of clever duodecimos, and attendance on eloquent lecturers, and membership with scientific institutions, and the sight of the experiments of a platform, and the specimens of a museum—that all this was not dissipation of mind, but progress. All things are now to be learned at once—not first one thing, then another ; not one well, but many badly. Learning is to be without exertion, without attention, without toil ; without *grounding*, without advance, without finishing. . . . What the steam-engine does with matter the printing-press is to do with mind : it is to act mechanically, and the population is to be passively, almost unconsciously, enlightened by the mere multiplication and dissemination of volumes.”¹

Though multiplicity breeds confusion, and depth is hardly compatible with a very wide range of subject, and, as Cardinal Newman says, the very extent of our literature leads to dissipation of mind, still it would signify very much less if the authors of the day were always worthy of their calling.

If the quality were better we might grumble less about the quantity. Of this it is we have most reason to complain. Thomas Carlyle, in speaking of modern writers, asks :—

“How is it that no work proceeds from them bearing any stamp of authenticity and permanence, of worth for more

¹ *Idea of a University*, p. 142.

than one day? Shiploads of fashionable novels, sentimental rhymes, tragedies, farces, diaries of travel, tales by flood and field, are swallowed monthly into the bottomless pool; still does the press toil, innumerable paper-makers, compositors, printers' devils, book-binders, and hawkers grown hoarse with loud proclaiming, rest not from their labour; and still in torrents rushes on the great array of publications, unpausing, to their final home. And still oblivion, like the grave, cries 'Give! give!' How is it," he asks, "that of all these countless multitudes no one can attain to the smallest mark of excellence, or produce aught that shall endure longer than 'snowflake' on the river or the foam of penny beer? We answer, Because they *are* foam; because there is no reality in them."

We must just quote one other passage from Carlyle bearing on the same subject and penned in his usual original and fantastic style. He is referring to those who scatter words without meaning, and do to the world mischief past computation:—

"Thistledown," he says, "flies abroad on all winds and airs of wind; idle thistles, idle dandelions, and other idle products of Nature or the human mind propagate themselves in that way; like to cover the face of the earth, did not a man's indignant providence, with a reap-hook, with rake and autumnal steel and tinder, intervene. It is frightful to think how every idle volume flies abroad like an idle, globular down-beard, embryo of new millions, every word of it a potential seed of infinite new down-beards and volumes; for the mind of man is voracious, is feracious, germinative, above all things, of the down-beard species. Why? The author corps in Great Britain, every soul of them *inclined* to grow mere dandelions if permitted, is now supposed to be about 10,000 strong; and the reading corps—who read merely to escape

from themselves, with one eye shut and the other not open ; will put up with almost any dandelion, or thing which they can read *without* opening both their eyes — amounts to 27,000,000, all but a few."

Much might undoubtedly be said upon this very important view of the case, but the matter is sufficiently obvious, so we may broach another consideration, and it is this :—

Secondly. That although the conveniences and improvements of later times—the telegraph, the post, the printing-press, the facilities for illustrating, photographing, chromo-lithographing, and so on,—although, we say, their tendency is to improve and raise the condition of man, yet the enemy has also found means to employ them to a fearful extent to further his interests. The amount of harm that is done in the world at present by reason of bad books and publications of all kinds is horrifying and heart-sickening. There are thousands who are ready to sacrifice their honour, even their very consciences, for gain, and will play upon not only the credulity and prejudice, but upon the miserable weaknesses of their fellow-creatures in order to secure a little more pelf. They proceed accordingly to poison the very wells of thought by the most infamous and immoral publications, and will feed and nourish with their

lascivious writings and illustrations the prurient sense and depraved inclinations of worldly and froward minds, and thus decoy untold numbers into the meshes and toils of Satan. In France and Italy particularly, but in almost every Christian land, this species of literature, in spite of the spasmodic efforts made by the governments, goes on doing its work and eating into the very vitals of the teeming populations. Minds that will feed upon such flesh-pots soon acquire a taste for such unwholesome literature, and will be satisfied with nothing else, and the constantly increasing publications point to a constantly increasing demand. It would be a curious and sadly interesting thing to trace the career of any single such volume, and see how at each step it defiles and contaminates those whom it touches; how, notwithstanding, it goes on from one to another and passes through hand after hand, leaving the slimy track of the serpent on whomever it touches. We might then form some idea of the total amount of harm that the immense number of volumes is causing, and which we can never sufficiently deplore.

Thirdly. What has been said of morality may be said also of religion and faith. Instead of its becoming easier to the masses to discover the truth by the light of reason, it has become

in some respects more hopeless than ever. The pernicious theories and opinions defended in volumes upon volumes full of the most specious and dazzling arguments, and written in a style best calculated to captivate and please, and bearing all that appearance of truth that learning and research can be employed to inspire, are simply innumerable. Theories, indeed, which but a few years ago no man would have ventured to hold, much less to defend in public, are now advocated in popular magazines and leading periodicals. Atheistical views and rational and pantheistical opinions are unfurled and waved before the public eye, and every man who has learned to read, imagines he can now form his own theories and act on his own judgment. Amid such a Babel of voices it is difficult to get a hearing. The claims of the Church are drowned amid the clamours of a thousand jarring sects, each more vociferous and loud-spoken than the others in the praise and vindication of its particular tenets. The minds of men are distracted by so many contradictory and conflicting statements, and are at last driven to take refuge from the storm of discordant opinions by building up a system of their own or by rejecting religion altogether. Nor is the number of writers inconsiderable at the present

day who, without actually attacking the Church *ex professo*, yet scoff at her holiest doctrines and mock at her most solemn offices, who turn upon her system and practice the full tide of their ridicule and abuse, and by hints and insinuations and ingenious sophisms do all they can to destroy her influence and lessen her hold on the love and loyalty even of her own children. Objections of various kinds against the most necessary doctrines, carefully elaborated proofs and ingeniously devised arguments attacking dogma after dogma, are scattered broadcast over the land, which the less instructed fail to see through and the worldly-wise welcome as messages of true wisdom. The indulgence, in some cases, of the worst passions is advocated on the loftiest principles, and sanctioned by men of the highest culture and learning. The future life and the invisible world, the immortality of the soul and the eternity of pain, are openly denied from the public platform, and laid down as ideas no longer tenable, no longer possible, in our present state of advanced knowledge and general enlightenment. We thus see that, though unquestionably human knowledge is a grand and noble thing, yet it can be so only when it is made the handmaid of religion. Though in itself it is a mighty and a powerful instrument,

it is one which may be used amiss. Ignorance is bad, we admit, but, as the late Archbishop of Sydney has stated :—

“There is, however, one greater curse in the world than ignorance, and that is instruction apart from religious and moral training. To instruct the masses in reading, writing and arithmetic, and to leave out religion and morality, is to arm them with instruments for committing crime. An ignorant criminal is bad enough, but he is harmless compared with an educated one.”

The illustrious Cardinal Newman, in speaking on the same subject, says also with his usual clearness of manner :—

“Knowledge is one thing, virtue is another ; good sense is not conscience, refinement is not humility, nor is largeness or justness of view faith. Philosophy, however enlightened, however profound, gives no command over the passions, no influential motives, no vivifying principle. Liberal education makes not the Christian nor the Catholic, but the gentleman.”

But in this twentieth century religion not only plays a subordinate part in education, but in many cases is totally estranged from school and lecture-hall. Nay, worse than this, as already remarked, it has in many cases become a butt of special attack and a mark for the bitterest vituperation.

While, therefore, we cannot but rejoice at the immense advantages that we enjoy in the

present age, we shall do well not to lose sight of the dangers and difficulties that but too often accompany them. While sharing as largely as possible in the former, we must ever be on our guard against the latter.

THE ETHICS OF ANIMAL SUFFERING.

“Noi dominiamo le bestie non solo per la superiorità della nostra natura, ma perchè le bestie non hanno diritti. . . . La violazione suppone diritti, che si ledono. Or, dove questi non sono, non può darsi nè violazione, nè ingiustizia.”

—MONSIEUR. MARIO FELICE PERALDI.¹

It is a well-recognised fact, that a man's power of sympathy with the suffering and the afflicted is, as a rule, in proportion to his own personal acquaintance with pain; indeed, we can judge what others feel only by analogy, for it is impossible to actually experience any state of consciousness or of feeling but our own. The only manner in which we can appreciate the distressing sensations that others are enduring is by reawakening our own past sensations, and endeavouring to place ourselves, as far as possible, in a similar situation. Thus it becomes a habit with us to measure the pains of others by reflecting on what we should feel if

¹ § iv., p. 368, *Della Civile Convivenza*, volume primo. Five vols., 1853.

similarly circumstanced, and to make ourselves the standard of comparison. This may often lead us into error, as when a tender-hearted lady, born in affluence and nurtured amid luxury, thinks the poor peat-carrier of Connemara as sensitive to wind and weather as she herself is. But the chances of error are indefinitely increased when the comparison to be instituted is not between the differently circumstanced individuals of the same great human family, but between ourselves and the unreasoning and unconscious birds and beasts of the fields. How are we to judge of their feelings and sufferings? How can we measure their capacity for pain? Science has contrived no means by which their impressions can be conveyed to our own nervous centres. Nor is it possible to possess ourselves of the special kind and degree of sensation felt, for instance, by a fox in the relentless grasp of a steel trap, or by a lamb in the fangs of a hungry wolf. To reason as though the pain were equivalent to what we should feel in similar positions would be very far from the mark indeed. As Dr. Andrew Wilson very temperately observes: "It is abundantly clear that their pains cannot be measured by ours. Wanting a human nervous system, these pains must be *infinitely* less—ab-

solutely and relatively—than those of man. Add to it all, that the real element in man's agonies is the high consciousness he possesses of everything around him, and we may see that in the absence of this fullest development of the nervous functions, pain itself must mean a very different thing to the lower animal than it does to man.”¹ Yet men continually argue as though the inferior animals feel quite as acutely as human beings; and may often be found to speak on this subject with a tone of authority, which nothing but the most accurate acquaintance with all their sensations can justify.

As a matter of fact, we know very little about the feelings of the lower creatures. Our best efforts to ascertain the truth upon this point are but gropings in the dark, and our most accurate knowledge can seldom be anything more than a very hazardous guess. We may, of course, argue more or less correctly from the struggles, cries, expressions of agony and fear, and other indications that may come under notice; we are also justified in relying, to some extent, upon the greater or less perfection of the anatomy, nervous system, and general corporal structure of the animal, and may judge from the nearness of its resemblance to our own sensi-

¹ Quoted in *The Zoophilist*, 1st Dec., 1900.

tive frame the probable extent of its capacities for pain. Still we shall often be deceived in our judgment and inaccurate in our conclusions. In this, at all events, there can be no doubt, at least, in our mind, that the most acute sufferings even among the higher orders of irrational animals are slight as compared with what man would suffer in the same or similar circumstances. This truth is owing not merely to man's more perfect organisation and nervous system, his habits of body, mode of life, and his more refined nature, nor solely to the possession of an intellectual power which enables him to grasp, as no brute can, all the present terrors of the situation, as well as its possibly still more disastrous consequences, but it is also in an especial way owing to the vastly superior nature of his human soul. Feeling is of course in the organism instrumentally. Flourens says, "*La sensibilité est dans les nerfs et dans la moelle épinière*". It resides in the nerves and spinal marrow, but only when informed by the living principle, which in the case of man is the soul. The consciousness of pain is a resultant dependent upon the union between body and soul. Therefore it would seem to follow that the more excellent the animating principle, the more delicate and sensitive will be its response to

any impression or modification of the nervous centres and other points of sensation in which (if we may so express ourselves) it is in contact; and the more accurately will it report and register in the field of consciousness any feelings of pleasure or pain. This strikes us as a legitimate conclusion from what Catholic philosophers teach concerning the necessary part played by the soul, even in every corporal sensation.¹ It also seems quite in accordance with what we should have expected from our knowledge of the goodness of God. Indeed, it would be shocking to suppose that the innumerable hosts of animals, which perish from slow and violent deaths, are as sensitive to pain as ourselves. We should have to exercise some violence with ourselves before we could suppose that they suffered with anything like the degree of acuteness, though the initial difficulty, of course, remains, and we may still demand, with some perplexity, why they should suffer at all. In all parts of the world immense numbers both of beasts and of birds are

¹ "Est operatio *animæ*, quæ quidem fit per organum corporale . . . et talis est operatio *animæ* sensibilis," &c.—St. Thom., I., lxxviii., Art. 1.

"Quoad identitatem *animæ* rationalis cum sensitiva, manifestissima res est, propter indubium conscientiæ testimonium."
—*Liberatore*, vol. ii., *Inst. Philos.*

exposed, not merely to the fury of wind and weather, and to lingering deaths from drought and dearth of food, but also from prairie and forest fires, from inundations and from periodical excesses of heat and of cold. A very large percentage are liable also to be torn to pieces in the cruellest manner by ferocious birds and beasts of prey, or to be stung to death by serpents and venomous reptiles.

Before advancing further it may be well to convince ourselves, by a few illustrations and examples, of the erroneous conclusions to which we may be led by the hasty analogies we are wont to draw between man and the lower orders of creation. Such analogies are never very reliable, but the lower we descend in the scale the more unreliable of course they are apt to become; so, to make the lesson as striking as possible, we will consider one of the lowest orders of creation — *viz.*, the insect world. Good-natured persons are generally disposed to think that even insects are easily pained, and to approve the old saying that a beetle crushed beneath our foot suffers all the pangs “as when a giant dies”. At all events the extent of their insensibility to pain, as far as we can gather from their conduct, is scarcely at all realised by the majority of men.

We may perhaps suppose at first sight that it would be difficult to devise a more cruel form of death than that of being slowly eaten up alive by numerous worms. To have our flesh gradually gnawed away, and our bones and sinews laid bare one by one till at last we succumb through sheer exhaustion and loss of strength, is certainly not a death to look forward to, nor one likely to fill us with pleasant anticipations. Yet there are insects that do not seem to mind it in the least. The caterpillar of the large white butterfly, for instance, frequently meets with that fate. When quietly browsing on the cabbage-leaf the little four-winged ichneumon fly may often be seen to approach, and with a flourish of its tremendous ovipositor, to plunge it into the fleshy parts of the caterpillar, first in one spot and then in another. In each wound so made it deposits an egg, which soon produces a worm or grub, which at once begins to feed and revel upon the living flesh and tissues in which it finds itself imbedded. Though we have with our own eyes watched these grubs develop, and have seen them wax strong on the luscious food so strangely provided, we have never noticed any symptoms of uneasiness or distress on the part of the unfortunate victim. Though it is

actually being slowly devoured by the numerous progeny of the ichneumon, regardless of all consequences, it continued to browse on the cabbage-leaf apparently with as much complacency, and with quite as good an appetite, as though it were perfectly free from these devourers. Nor is its death a rapid one; by an instinct of nature the parasites avoid the vital parts of their prey, so that they are enabled to continue their feast till there is little left but a dry shrivelled-up skin. The caterpillar then succumbs to its fate. This insensibility is surely hardly what we should have anticipated, and suggests extreme caution in the application of our analogies.

We will now consider a somewhat different instance.

A gentleman being engaged in collecting insects caught a specimen of the common dragon-fly, which he fastened down in his collecting-box with a large pin thrust through the thorax, when to his astonishment he observed the dragon-fly held in its forceps a fly, which was still struggling for liberty. This it soon devoured *without exhibiting any signs of pain, seeming wholly unconscious of its own unpleasant situation*, being still secured by the pin before named to a piece of cork.¹

The gentleman, willing to improve the experiment still further, caught another fly, which he offered to it. This was eagerly seized by the rapacious insect, and devoured with equal

¹ Thompson's *Passions of Animals*, p. 105. 1851.

greediness and satisfaction. Such facts plainly prove that the most ghastly wounds produce either no pain whatever, or, at all events, so little as not even to interfere with appetite. The fact that some insects will live a long time after the loss of an important member of their bodies without any signs of excessive pain is a further indication of the same truth. The *Libellula* or common dragon-fly, *e.g.*, will survive for whole days the loss of its abdomen, or even its head. Edward Thompson states positively that he has seen "a *Carabus granulatus* run without its head; and that a *Cerceris*, deprived of its head at the moment it was inserting itself into the cell of a bee to deposit its eggs, did not allow such a trivial accident to interfere with its purpose, but *continued* its attempt, and then even *turned*, and endeavoured to feel its way *back to it* after it was placed in an opposite direction. This determined effort to conclude the operation of laying its eggs after its decapitation clearly indicates the presence of very little actual pain.

The death-watch, which seeks to escape injury by feigning death, will betray no signs of discomfort however cruelly it may be dealt with when in that state. It will allow itself to be torn limb from limb, to be transfixed with a pin, and

even to be roasted to death without so much as a change of posture. The resistance to death of insects has been the gruesome subject of study chosen by some European physiologists. Signor Canestrini, an Italian, has investigated the effects of decapitation, and has found that motion could be excited in the headless bodies for many hours—as much as 30 in ants and certain beetles, 36 hours in flies, 8 days in grasshoppers, and 11 days in earwigs, while beheaded crickets jumped after 13 days, and headless butterflies were able to fly for 18 days. The heads, too, were sensitive for several hours, in grasshoppers for as much as 48 hours, and in mole-crickets for 78 hours. The behaviour of the insects on losing their heads varied. The coleoptera turned upon their backs almost immediately, but the crickets and some others remained upon their legs until death, and ants and bees remained long immovable, as if not realising what had happened.

M. Devaux, a Frenchman, has experimented upon the resistance to drowning. Ants under water soon shewed signs of distress and then became quite inert; but most of them could be restored to life after 24 hours' submersion, a few after 50 or 60 hours, and one revived momentarily after 110 hours. These examples might be considerably added to, but they suffice to

show us how little the casual observer can judge of the nature and degrees of suffering endured by irrational beings, and how little he should trust his own hasty conclusions. As we ascend in the scale, and have to do with more fully developed organisms, pain becomes more apparent on mutilation, and we find more unequivocal signs of suffering. Still, who will determine the maximum of which even the highest of the quadrumana are capable? It must be immeasurably below what we are accustomed to fancy. Still, minimise it as much as we may, there is undoubtedly—after all allowance made—a considerable residue of suffering among animals, occasioned in various ways. For the moment, we will not take into account the share man may have in producing it, but confine ourselves exclusively to irresponsible causes. First, there are storms, inundations, droughts, excessive cold and heat, prairie and forest fires, earthquakes and landslips, by which hundreds of thousands of creatures perish with a more or less prolonged agony. Then there are plagues, diseases, and all kinds of terrible eruptions and epidemics, to which animals are subject, and which torment and distress them in a great variety of ways. Lastly, there are sufferings caused by the whole tribe of Carni-

voræ, which live upon the warm and trembling flesh of less ferocious beasts, which they rend and tear with barbarous ferocity. Consider, for instance, the fearful wounds caused by the savage beasts which either hunt down their prey like the wolf and the jackal, or lie in wait for it like the Felinæ. It is well known that the leopard's and panther's thirst for blood is insatiable, and that the number of animals that they slay is immense. The puma, or South American lion, resembles the cat in the mode of seizing its prey, and will play with it for hours, with the like ingenious cruelty; so also the chetah, or hunting leopard.

The torture inflicted by another class of animal is, if somewhat different, assuredly quite as great, and reminds us of the tortures of those martyrs who were slowly crushed beneath greater and greater weights. We refer to the larger species of serpents. The enormous boa, for instance, and other specimens of the same genus, which lie in wait for antelopes and other quadrupeds, are most unsparing of suffering in their manner of procedure. They will coil themselves around a captured animal, and slowly encircling it in their mighty folds, will gradually suffocate and crush the poor struggling and agonising creature till its bones crack and

its joints are dislocated, and it is reduced at last to a state of pulp, which may greatly aid deglutition. If animals suffer at all as we do, then the pain endured before death ends it must be intense. Compared with this, the sharp knife of the skilled vivisector seems merciful. Consider also the might that is seated in the proboscis of the elephant, and the force with which the rhinoceros, the buffalo and the wild ox gore with their horns, and rip up the bodies of their victims. If we descend in the scale of creation the same law of pain prevails. Both the Crustaceæ and spiders feed on the blood and juices of *living* animals, catching them either by a spring, by pursuit, by lying in wait, or by snares. Some spiders, when satiated, secure their unhappy captives in their webs as a reserve for a future meal; while the shrike, with yet greater cruelty, spits beetles on thorns for the same economic purpose. The lion-worm (*Leptis*) reminds us of the gigantic boa in its treatment of its prey: it winds its body in coils around its victim and compresses it to death, while it sucks out the juices by means of a most cunning little implement fixed to its head. The ant-lion is not more merciful. It plunges the point of its jaws into the body of any small insect that comes within its reach, sucks out all

the juice from the quivering and palpitating little sufferer, and then throws out the empty skin to some distance, as a child might throw a sucked orange.

Nor is it only creatures of their own size that insects will attack and torture. There are many varieties which will harass and torment large animals, and make their lives, if their sufferings correspond with our own, a veritable hell upon earth. Indeed, there are few, even of the more highly organised animals, which have not strong cause to lament the existence of some of their more unscrupulous parasites. We may refer the reader to a book on *Animal Plagues and Diseases*, by Fleming, for innumerable instances. For the present we will satisfy ourselves with a single example, which we take, however, from another source, *viz.*, from Omphalos. The insect to which we refer is called the *Æstrus ovis*, or sheep-bot; as its name suggests, it is the terror of the flock. With the same unerring instinct which we so admire, though in another relation, in the honey-bee and the industrious ant, this sagacious little creature lays its eggs where alone they can ever come to maturity—at the edge of the nostrils of the sheep. Out of these eggs small larvæ emerge, which crawl up the nostrils of

the unhappy animal "till they find a suitable resting-place in the frontal sinuses of the skull". It is evidently guided to the nostrils of the sheep by the same divinely engrafted instinct that guides the bee to the flower; for "to suppose the eggs in any other circumstance would be to consign them to certain destruction".¹

It is not necessary to dilate upon the prolonged agony any sheep, so used, must endure, if it is as capable of suffering as man. *Verb. sap.* If we allow—and it seems as patent a fact as any we can point to—that the poor beasts that perish by the claws of lions and wolves, or the talons of eagles and kites, endure at least some sort of agony and fear, we must not shirk the consequences that follow from it. One of the most important of these is that suffering is not merely permitted by the Omnipotent and Omniscient Creator, but distinctly caused, since *qui facit per alium facit per se.*² Has He not designed, and fashioned, and called into being the wolf as well as the lamb, and the vulture no less than the dove? Has He not

¹ Omphalos, p. 309.

² Nor can we attribute the ferocious habits of carnivorous animals to the fall of man. St. Thomas teaches that even had Adam retained his innocence, the carnivoræ would still have been dissatisfied with a purely

implanted within the Carnivoræ all those instincts and inclinations which make them the terror of the mountain and the forest? Consider the eagle and the lion; see how He has adapted them for their ferocious habits; how He has armed them with the sharpest and strongest weapons and taught them skill and cunning in the capture and ensnaring of their defenceless prey, no less than He has taught the birds to build their nests, and the swallows to fly over the stormy sea. He has created them with an inborn thirst for blood, and has not, as in the case of the cruellest man, provided, as far as we can discover, any corrective. Indeed, the cruelty of man towards animals, even though it were double or treble what it is, represents but a most inappreciable and insignificant fraction of the sum total of suffering induced by unconscious agents all over the world. Not merely in the vast forests of South America, and the burning plains of India, and the islands in the Pacific, and in other parts of the less thickly populated regions of the world,

vegetable diet. "*Non per peccatum hominis natura animalium est mutata, ut quibus nunc naturale est comedere aliorum animalium carnes, tunc vixissent de herbis sicut leones et falcones. . . . Fuisset naturalis discordia inter quædam animalia*" (I., xcv., Art. 4). St. Augustine has expressed a somewhat different opinion.

is there a perpetual rending, and tearing, and pursuing, and crunching, and clawing, and devouring, but all around us, and about us as well. The hawk pursues the sparrow, the owl pounces on the unwary mouse, the stoat and weasel suck the warm blood from the terrified rabbit and hare, while even delicate little linnets and finches crunch the wriggling worm. Even within the privacy of our very rooms the cruellest deeds are perpetrated. While the cat plays with the terror-stricken mouse upon the floor, the house-spider weaves and spreads her nets upon the ceiling, and allures many a giddy, unsuspecting fly to its awful doom. In spite of hue and cry the pitiless snarer grasps the victim in her claws, and sucks with savage glee the life-blood from its veins. Thus, from the entire world of sensitive nature goes up a ceaseless wail of agony and writhing pain; nor can any well-intentioned effort on our part do much to diminish it. We have no right, of course, to conclude that because God, for most wise ends, permits animals so to torture one another, that therefore we, *à fortiori*, may also disregard their sufferings. But, though it is not absurd to declare that God forbids man to inflict useless and unnecessary pain on animals, it is hardly reasonable to assert that He thus for-

bids it *on their account*. Man owes it, not to the animals but to himself, to abstain from wanton cruelty. This most men seem to understand; thus Mr. Justice Chitty, during the course of a trial, observed:—

It might be truly said that the infliction of justifiable pain was *not cruelty*. The question of what was and what was not justifiable was a question of morals, on which their minds might reasonably differ. Cruelty was depraving to man, and a society for the suppression of cruelty to the lower animals, whether domestic or not, had for its object not thereby the protection of the animals themselves, but the advancement of morals and education amongst men.¹

The truth of this last remark will be best realised by a few examples. If, when wandering along the banks of the Orinoco, I stumble across a poisonous specimen of the tarantula, no one will deny me the right to take a stick and crush it forthwith; but if a gorgeously painted humming-bird alight upon my hand, I should be at once accused of cruelty were I to seize it, and tear it limb from limb. The one is a graceful and innocent creature, but the other a public enemy. Yet, considered merely from the animal's point of view, one is quite as innocent as the other; both equally obey the law of their nature, which is as truly determined by God and as irresistible as the law of gravita-

¹ *The Standard*, 24th July, 1895.

tion. When passing sentence of death on the lower animals we never consider their guiltiness or their non-guiltiness, since they must ever be wholly blameless in following out the instinct of their own nature ; all we think of is ourselves—our own convenience. The pain a tarantula or a snake suffers under the repeated ill-directed blows with which a nervous man will seek to despatch it, is considered by most persons as nothing but a most just and deserved punishment for the fear and irritation which it inspires ; but, strictly speaking, any punishment is as undeserved in the case of the most venomous tarantula, or snake, as in the case of the most charming humming-bird or gambling fawn (*i.e.*, abstraction made of our own convenience). For observe, the snake is every bit as unconscious of doing wrong in fastening its fangs in our flesh as the bee in plunging its proboscis into the cowslip cup or into the waxen bell of the begonia, and is as little worthy of death. Why should we unhesitatingly wound and macerate the one, and think it cruelty to exercise a like vengeance on the other, except from purely personal reasons ? Regarded exclusively from the animal's point of view, we fail to see why it is one degree worse to butcher a thousand seals for the sake of their jackets, or humming-birds

for the sake of their plumage, than to butcher as many boa-constrictors, or adders, on account of their sting. In both cases these creatures (unhappily for them) chance to possess a gift of nature which provokes man to take their lives ; but the latter (still confining our view to the animal standpoint) are as guiltless and just as little worthy of stripes as the former. How indeed can one be more guilty or less guilty than another, when both are absolutely and necessarily innocent ? All beasts, even the most ferocious, do but follow their unreasoning instincts. The act of a tiger, when leisurely bending over the prostrate form of the captured hunter, and feeding upon his legs and arms, is just exactly as virtuous (or as vicious) as the act of an Alderney cow when yielding her milk to nourish incipient humanity—neither more nor less. That the one should be rewarded and the other punished for what neither can possibly help must (so soon as we leave our own interests out of the question) be considered as the most unjustifiable and arbitrary method of proceeding possible. The more we consider this matter the more clearly it will become apparent that in dealing with animals man is guided solely by their relations to himself.

To say that animals have rights which we

cannot invade is to say a good deal too much. The sinfulness and moral obliquity of inflicting wanton pain—for it may reach even that extent—rests upon far other grounds. Our obligations in this matter arise rather from what we owe ourselves as rational and responsible beings, than from any peculiar right inherent in the lower animals themselves. As the Creator *cannot* act in opposition to His divine nature, so the rational creature *ought not* to act in opposition to his human nature. Every great gift carries with it a correspondingly great responsibility. Thus, if God has endowed us with the marvellous faculty of reason, it is that we should act according to the dictates of reason, and not in a wanton and arbitrary manner, even towards the lower creation. Now reason demands (*a*) that there be a motive for all our actions, (*b*) that there be a certain proportion between each act and the motive which elicits it, and (*c*) that the motive at all times be a just one. Here at once we are provided with a check against wanton cruelty.¹ To inflict pain upon the lowest beast for the mere pleasure of seeing it suffer, or for the sake of indulging a cruel disposition, would be unquestionably wrong. Some definite gain must

¹ *Vide my Thoughts for All Times*, part iii., chap. ix.

be proposed as the motive of our action before we should so much as entertain the idea of putting it into operation ; and this gain must bear some proportion to the incidental pain inflicted. The right of inflicting some degree of pain and inconvenience is well recognised by men all over the world ; and this right is constantly enforced and reduced to practice. A very appreciable amount of pain, for instance, is inflicted in breaking in a horse, and teaching it to recognise the power and authority of its master. And even when this is done we put an iron bit into its mouth, we gore its flanks with the spur, we strike its sensitive back with the whip (and there is no more sensitive beast than a thoroughbred horse), we load its feet with heavy iron shoes, we compel it to carry us twenty or thirty miles along a hard turnpike road, we turn it now to the right, now to the left, and force it into endurance vile. No one can suppose that this is not interfering in some measure with its contentment and ease, or that it does not necessarily entail some amount of suffering. What then is our justification ? Well, that we are only exercising that dominion over the brute creation conferred by God, and that we are not *abusing* our privilege, since the end we have in view sufficiently justifies the

methods here employed. We are not exceeding our rights so long as we do not exceed the dictate of sound reason. In a word, so long as the suffering inflicted is not out of proportion to the benefits derived, we are undeserving of censure. What we have said of the horse no one, we believe, will venture to question. The practice of so subduing, taming and training for our domestic use the horse, the pony, the mule, and patient ass ; and in other parts of the world the elephant, camel, and goat is, at all events, universally followed without a word of censure even from the most tender-hearted. The principle, therefore, that *man may inflict pain upon the irrational animals, even merely for the sake of his own convenience and advantage*, is at once virtually conceded. It is in fact accepted as an axiom by all men, and acted upon in a thousand practical cases. The watch-dog that we keep chained up day and night in our backyard, the canary that we imprison in our cage, the birds, beasts and reptiles that are huddled up within the narrow precincts of our zoological gardens ; the ferrets, whose mouths we fasten up and send to hunt out rabbits ; and the fresh fish that we crimp, and the lobsters that we boil alive, are all illustrations of it. The principle, in a word, is taken for granted. Yet there are, on the other

hand, excesses of cruelty which are reprobated at once by all tender-hearted men, and which none will seek to justify; but they are, speaking generally, cases of *motiveless* severity. If a man loses his temper with a horse, and flogs it to death in his stable-yard, he is rightly stigmatised as a heartless brute; but let precisely the same severity be exercised in view of a proportionate gain, and the self-same act excites no indignation. For instance, a rider, flying for his life from a tribe of pursuing savages, might rightly lash his horse, and urge it on with whip and spur till it drops agonising to the ground incapable of further motion. In view of such cases, it would seem that the whole question of right or wrong is to be determined (and we think rightly) by the extent of the advantage to be derived. It is true that there are many who would quite resign themselves to see a horse spurred and lashed to death by a man riding for dear life, whose gall would nevertheless rise at an act of vivisection, though performed with a view of saving twenty lives; but this of course is only saying that there are men who are illogical and inconsistent, men who are ruled by sentiment, and not by reason. Granted such results from an act of vivisection, and we utterly fail to see how the bitter condemnation of it can

be defended on the plea of our duties towards the animals. We advisedly say, "granted such results," for there are those who question them ; and till they are clearly and unequivocally substantiated, painful and barbarous experiments can never be justified or approved of by any right-minded person. Whatever may be the outcome of future years, the fact is now hotly disputed. Thus Dr. Lawson Tait (quoted in an address by Canon Wilberforce) says :—

Vivisection has proved useless and misleading, and in the interests of true science its employment should be stopped, so that the energy and skill of scientific investigators should be directed into better and safer channels.

The Canon then goes on to say :—

Sir Thomas Watson told me that all the students had to unlearn at the bedside what they learned by experiments on animals, and that the true place where alone they could learn anatomy was in the mortuary hospital.

This sounds pretty strong, and, if really true, would be quite decisive ; still in simple justice we must allow that others think differently. In fact, the overwhelming majority of medical men, who are after all *the only really competent judges*, declare that vivisection is of immense use and of great importance. H. Taine, for instance, says :—

Les vivisections ont créé presque toute la physiologie du système nerveux. . . . Renoncer aux vivisections serait condamner cette science à un éternel *status quo*.

Indeed the whole weight of authority is on the side of the vivisectors. At a great public meeting at which were assembled representatives of all branches of the medical profession from "all parts of the United Kingdom and the Colonies," the following resolution was proposed by Mr. Hutchinson and seconded by Dr. W. H. Ransom, F.R.S., and was "carried *unanimously*," viz., "That this general meeting of the British Medical Association records its opinion that the results of experiments on living animals have been of *inestimable service to man and to the lower animals*, and that the continuance and extension of such investigations is *essential* to the progress of knowledge, the relief of suffering, and the saving of life".¹

Sir Andrew Clark, Sir James Paget, Sir George Humphry and another leading physician, Samuel Wilks, wrote a joint letter to *The Times*, dated 14th October, in which they state that: "It is hardly possible for us to name any progress of importance in medicine, surgery, or midwifery which has not been due to, or promoted by this method (*i.e.*, vivisection) of inquiry". A large number of other authorities might be quoted in the same sense. But let us pass on. So far, we have spoken merely of

¹ *The British Medical Journal*, 6th Aug., 1892.

the demands of reason. Now we would remind the reader that God has bestowed upon us other gifts besides, for the direction of our conduct. If reason and intelligence are His gifts, so also are the sentiments of mercy, compassion and sympathy. They have not sprung up in the soul by accident ; they are not some foreign importation. They are distinct effects of God's creative power and wisdom, and intended to enter into the composition of forces which determines our action and influences our daily lives. Men often speak of these dispositions of soul as if they were in no way to be regarded ; and act as if they were never intended to exercise any softening and humanising influence over their harsher and sterner proclivities. We might well ask, in that case, why were they given to us ? The fact of their possession is argument enough that they were bestowed for a purpose—for the purpose of being exercised. One, therefore, who should steel his heart to all the more delicate and gentler promptings of his nature, and refuse to modify his conduct in any way at their bidding, with the view of being directed by the cold blue light of reason alone, would in reality be defeating his own purpose. He would be abusing reason, since reason clearly demands that man should act according to his

nature as a whole, with all his complexity of feelings and sentiments, and not merely as an emotionless logician and metaphysician. Matthew Arnold says: "Finely touched souls have a presentiment of a thing's natural truth even though it be questioned, and long before the palpable proof by experience convinces all the world"; and all admit that there is a *convenance* and a fitness of things which may be too subtle to be explicitly demonstrated. Indeed, some of our best and highest states of mind are determined by far other motives than can be worked up into a syllogism. "On n'aime pas une femme," says Gustave Droz, "par raison démonstrative, on n'aime pas non plus la patrie, l'art, le bien, et le beau par logique de raisonnement." And so, too, there may be a consideration and a certain tenderness of feeling due to the lower creation too subtle to reduce to any strict form of mathematical proof, and which only the more "finely touched" souls can perceive. In any case, it is quite certain that any persistent and systematic disregard of the sentiment of compassion will at last so far reduce its influence that for all practical purposes it might just as well have no existence at all. Repeated acts of wanton cruelty to animals beget a cruel and savage disposition,

which by a very easy transition develops into cruelty to men and general hard-heartedness. It extinguishes even the ordinary feelings of humanity, and brutalises and demoralises the whole character. Those who begin, like the pagan Emperor Domitian, by finding delight in killing and tormenting animals, will generally also end, like him, in practising barbarities and cruelties upon human beings. The victims of their cruelty change, but their pleasure in inflicting pain is the same.

Indeed, of all the motives that may be brought forward to persuade men to practise kindness and consideration to the lower animals, a due regard to their own character is surely one of the strongest. The noblest and most exalted specimens of the human race, *i.e.*, the saints, have ever been conspicuous for their extreme gentleness and care for the dumb beasts; and no one at all familiar with their lives can fail to have remarked with what friendliness and affectionate familiarity they were wont to treat them. St. Francis and the wolf, St. Benedict and the raven, St. Gregory and the dove, are all instances in point, while the history of the fathers of the desert is a perfect repertory of examples.

This characteristic in the case of so many

saints should hardly surprise us, considering how strongly mercy and gentleness towards beasts and birds are inculcated in holy Scripture ; witness such expressions as, "Thou shalt not muzzle the ox that treadeth out the corn" (Deut. xxv. 4); "Six days shalt thou work, the seventh shalt thou cease, *that thy ox and thy ass may rest*" (Exod. xxiii. 12); "Thou shalt not plough [owing to their unequal strength¹] with an ox and an ass together" (Deut. xxii. 10).

Among many other instances which might be cited we will content ourselves with that of Balaam and his ass, narrated in the twenty-second chapter of the Book of Numbers.

The prophet Balaam arose in the morning, and saddling his ass went (on his journey). And an angel stood in the way against Balaam, who sat on the ass. The ass seeing the angel standing in the way with a drawn sword, turned out of the way, and went into the field. And when Balaam beat her and had a mind to bring her again to the way, the angel stood in a narrow place between two walls. And the ass seeing him, thrust herself close to the wall,

¹ Such is the reason of the command assigned by Aben Ezra, the Jewish commentator, though Card. Cajetan says: "Metaphorice intelligendum est",

and bruised the foot of the rider. And he beat her again. Nevertheless the angel going on to a narrow place, where there was no way to turn to the right hand or to the left, stood to meet him. And when the ass saw the angel standing, she fell under the feet of the rider ; who being angry, beat her sides more vehemently with a staff. And the Lord opened the mouth of the ass, and she said : " What have I done to thee ? Why strikest thou me so, now this third time ? " Balaam answered, " Because thou hast deserved it, and hast served me ill. I would I had a sword that I might kill thee." After this the angel renders himself visible to Balaam as well as to his beast, and, though he has an important message to deliver to the prophet, yet he postpones the delivery of his errand till he first reproofed and convinced him of his wickedness and cruelty in smiting the ass. That the reproof might strike Balaam the more forcibly, the angel makes use of the very words which the ass had spoken, " What have I done to thee," said the ass, " that thou hast smitten me these three times ? " and the angel said, " Wherefore hast thou smitten thine ass these three times ? " To the question put by the ass Balaam had replied, " Because thou hast mocked me, and I would that there were a

sword in my hand, for now would I kill thee". But when the angel asked him the self-same question, his tone was changed, and we hear not a word about mocking, or wishing for a sword to kill her, but a confession of sin and an apology of ignorance ; and Balaam said unto the angel of the Lord, " I have sinned ". The sin evidently did not lie in the evil purpose of his expedition, as some might suppose. It consisted in his smiting the ass ; for the confession is the response to the angel's question. And the angel did not say, " Why dost thou persist in thy design of cursing the Israelites ? " but " Why hast thou smitten thine ass these three times ? " It was to this question that Balaam replied, " I have sinned ".

This is the interpretation of the Very Rev. H. Primatt, D.D.,¹ and we give it for what it is worth. We are not, however, without suspicions ourselves that it was the prophet's anger and passion, rather than his beast's sufferings, that provoked the reprimand of the angel.

This extract from Holy Writ certainly seems to point to a strong disapproval of any exercise of cruelty or inconsiderateness towards the irrational beings that move about us. It helps

¹ See *A Dissertation on the Duty of Mercy*, etc.

to accentuate the importance of a due regard for their feelings and sufferings, and teaches us that though we are their masters, nevertheless we must be guided by our reason, and by our higher and more refined instincts in dealing with them. Noble-minded persons will instinctively shrink from inflicting unnecessary pain.

Cowards are cruel; but the brave
Love mercy, and delight to save.

We will conclude this chapter with a somewhat remarkable statement made by Thomas Jay Hudson, in his *Scientific Demonstration of the Future Life*, page 254. Our only regret is that it is not accompanied by some satisfactory and convincing argument. This is how he expresses himself:—

“God does exhibit a positive, tangible quality of pure *benevolence* towards all animate nature in a phenomenon that is of such common experience that the world appears to have overlooked it entirely. That phenomenon consists in the absolute immunity from physical or mental suffering in the hour of inevitable death. This immunity is universal in all animate nature. Moreover, there is every evidence to show that death is a pleasurable process to all who experience it, from the lowest to the highest

organism in nature. Moreover there is indubitable evidence demonstrative that *God is ever kind to the victim of the inevitable*. This is true whether the inevitable event assumes the form of death *or of a surgical operation*, for in the subjective state which spontaneously ensues upon the approach of either event, there is provided a universal anæsthetic which deprives death of its sting and its terrors, and if the surgeon knows the laws pertaining to the subject, it eases the patient of all pain and suffering. Could further or more tangible evidence be required to demonstrate the quality of mercy and benevolence in God towards His creatures?"

Though we quote the above opinion, we find it difficult to subscribe to it ourselves.

We will conclude this chapter by observing that nothing is gained by the exaggerated statements and the extreme views expressed by certain animal-worshippers of the present day, who seem to have no sense of proportion. The effect of their unmeasured words is rather to excite indignation, and to cause a reaction in the minds of the more reasonable section of the community.

I will give three instances of what I mean, each illustrative of a whole class. The first is

an example of the unseemly and irrational attitude such animal-worshippers assume towards persons, even the most respectable and eminent, who should dare to differ from themselves.

Thus, it is recorded that, simply because Dr. Magee, Bishop of Peterborough, could not bring himself to vote in support of a bill for the *total* abolition of vivisection, he was "violently attacked and roundly abused. Every post brought him letters, anonymous and otherwise, denouncing his speech and himself, in terms which could not have been stronger had he voted for vivisection pure and simple. One anti-vivisectionist actually wrote to him in 1883, when he was suffering from a very painful illness, which seemed almost certain to terminate fatally : 'Thank God ! you are now suffering some of the torments to which you would have devoted dumb animals, and will, with God's mercy, suffer still greater ones'." ¹

Yet such persons talk of our "want of charity and consideration".

My second case affords a good example of the muddle-headedness of certain foolish people, which induces them to treat brute beasts as if quite on a par, if not even vastly superior to

¹ *Speeches and Addresses*, by W. C. Magee, D.D., Preface, pp. vi. and vii.

man, who is created to the very image and likeness of God. Here is a piece of sickening reading :—

“It has become rather common for dog-lovers in America to give their pets a funeral, even going so far as to encase the body in silk-lined coffins. But it has remained for Mrs. S. E. Bowser, of Trenton, New Jersey, to go to the extent of a musical funeral. Jennie, a pug, lay in state all one day in Mrs. Bowser’s parlour, and was viewed by hundreds of children. The body was placed in a black-covered coffin lined with pink silk, and had a huge bow of white ribbon about its neck. Sacred music was played on the organ, and several hymns were sung by the children. Jennie will have a tombstone.”¹

Here is a third example which for sheer blasphemy and folly must surely register high-water mark. In a letter to the *Westminster Gazette*, 1st September, 1900, one “Elizabeth L. Banks” writes: “Sir, I have seen immortality in my dog’s eyes—my faithful friend for thirteen years, now dead, yet over whose grave I have placed the inscription—*Not* dead, but *gone before*. . . . As for Revelation, ch. xxii., v. 15, so often glibly quoted, all I have to say is, that if it is true, then may it be granted unto me

¹ *Evening News*, 12th October, 1901.

to have lived in such a way that I also may be one of the despised 'withouts,' so that I may have the company of my dog"! (Miss?) E. L. Banks here refers to the words of St. John, who, after describing those who have a right to a place within the Gates of the Heavenly City, goes on to say: "Without are dogs, and sorcerers, and unchaste," etc., etc.

Here, the words (*οἱ κύνες*), "the dogs," are to be taken metaphorically, and mean the persecutors of the Church, and so forth. But the writer, taking the words literally, expresses her preference to be outside Heaven, with her dog, than inside, with God and His Saints and Angels!!! Comment is useless, and here anger gives place to pity.

THE FINAL DESTINY OF THE EARTH.

“A thought of glory for the day of doom
Kindles my brooding heart with hopes sublime,
Gilding with light Creation's final gloom,
Tinting with vernal blush the corpse of Time.
Perchance it is some mere delusive dream,
Some phantasy divine, but all untrue ;
Yet doth my fancy drink its golden gleam
As the dry floweret quaffs the genial dew.

“Methinks that God's great orb will not decay
Till every atom of terrestrial dust
Hath formed a portion of soul-nurtured clay,
That thrills with love, or throbs the pulse of lust.
Methinks that never—till the race of man
Hath tallied with earth's aggregated pomp,
Numbers and bulk comprised in equal span—
Shall clang thro' heaven's abyss th' angelic trump.

“When with red horror glares the lurid sun
Thro' the gray ghastr'ness of the sullen air ;
When dirge-like tempests clothe the mountains dun,
And probe with thunderbolts their caverns bare ;
When hosts unutterable throng the skies,
Of moons, and stars, and flaming seraphim ;
When o'er their wings th' Almighty Christ shall rise,
And render all contrasted splendours dim ;

“Then, then methinks the Godhead’s awful voice
 With strange, revivifying influence rife,
 Shall bid that realm of dormant souls rejoice,
 And its whole substance quicken into life !
 Some downwards hurled a wild and damned race,
 And others glorified to thrones above,
 And the world’s orbit prove a void in space,
 The vacant mould of man-redeeming love !”

—C. KENT.¹

* * * * *

“Where is the dust that has not been alive ?
 The spade, the plough, disturb our ancestors ;
 From human mould we reap our daily bread.”

—YOUNG : *Night Thoughts*, 9.

“Diesem Austausch des Stoffs hat man den Namen Stoffwechsel gegeben. Man spricht das Wort mit Recht nicht ohne ein Gefühl der Verehrung. Denn wie der Handel die Seele ist des Verkehrs, so ist das ewige Kreisen des Stoffs die Seele der Welt.”—MOLESCHOTT.

THE origin of the earth and the true interpretation of the Biblical account of the six days of creation have occupied the attention of the learned and the leisured during so many years, that we feel no apology is needed if we now invite the thoughtful reader to turn aside awhile from the consideration of the earth’s beginnings to the consideration of its end and final destiny. The distant future of this planet is perhaps enshrouded in as impenetrable a cloud of

¹The above poem by Mr. Charles Kent first appeared in *Aletheia and other Poems*, published in 1850 by Longman & Co., under the title of “Dies Irae”.

mystery as its past, but if the former question is no less speculative than the latter, neither is it, to say the very least, one whit less interesting.

The theory which we will now proceed to lay before our indulgent readers is proposed with considerable diffidence, and merely as a possible hypothesis, because, so far as the writer can learn, it is an entirely new one,¹ and for that very reason it is hardly to be expected

¹ Such was indeed my first impression and conviction. However, I must here confess, that so soon as the essay actually appeared, it became apparent that a similar idea had occurred to others besides myself. Dr. Hugh B. Kennedy, a surgeon of Dublin, for instance, wrote at once and laid claim to having originated the theory. He declared my essay to be "a plagiarism of the most flagrant and impudent character". In fact, he succeeded in persuading himself quite erroneously (though I am bound to say there was some apparent ground for his suspicions) that I had filched the whole idea from him! I was never more surprised in my life. However, it was then found that in spite of Dr. Kennedy's vehemence, and notwithstanding his claims, he was no more the originator of the theory than I was. Many long years before Dr. Kennedy opened his mouth upon this subject, the idea had not merely been already conceived, but had been brought forth, in the form of an elegant poem, by Mr. Charles Kent, and his son, Rev. W. Kent, was kind enough to present me with a copy of the verses. These verses, published in 1850, now occupy a place of honour at the head of the present chapter. Possibly, if we plodded further back, and dug deeper into the past, we might find others who have been struck by the same thoughts, for, after all, "there is nothing new under the sun".

that it will meet with a very cordial reception, or be allowed to pass without some comment and opposition. Indeed the theory will probably strike many as strange and far-fetched, even if it be not pronounced from the first fantastic, absurd, and untenable. Still, it is but a hypothesis, and we throw it out as at least a fitting subject for discussion and interesting debate.

The arguments adduced in support of the proposition are all either drawn from the teaching of sound theologians, or else based upon accepted truths of science. If, therefore, the strangeness of the conclusion to which they conduct us be somewhat startling, we must bear in mind that it is not our imagination, but our reason that should guide and control us in formulating a judgment.

Instead of stating the theory off-hand, it will be advisable to draw attention to certain scientific facts bearing upon the subject, and which must be clearly understood and fully accepted before an appreciative, or even a dispassionate view can be taken of the particular question under consideration.

FIRST SCIENTIFIC FACT.—Although the earth which we inhabit charms our senses and captivates our minds by the almost exhaustless

diversity of the forms and colours it sets with such lavish profusion before us ; although myriads of objects, animate and inanimate, and of every tint and texture, size and proportion, are scattered broadcast around us in all directions and in endless variety, it is nevertheless an incontrovertible fact (if in these days any scientific fact can be called incontrovertible) that all these countless objects, of whatever shape or hue, are without exception reducible to a small number of elementary substances. In fact science informs us that every material object that exists on earth—everything that we can see, hear, taste, touch, or smell—is built up and fashioned out of one or more of a very limited number of simple substances differently combined, and variously selected and proportioned.

That so many millions of, apparently, totally dissimilar objects should really be formed from so small a number of elements will, of course, strike the uninitiated as very wonderful and inexplicable. But then God *is* wonderful in His works. *Quis sufficit enarrare opera illius? Quis enim investigabit magnalia ejus?* His skill in building up the visible universe may be compared to the skill of a great musician or composer who will draw a thousand different

symphonies from a single instrument, or to that of the painter or artist who, with the seven colours of the spectrum, will set before our admiring gaze an unlimited number of entrancing scenes and picturesque landscapes. If indeed from a single ray of light the prism can furnish us with three simple and four complementary colours, and if from these seven we may, by combination, produce every tint and hue that is known to the eye, surely it needs no great faith to believe that God may have formed all material things with which we are acquainted from one or, at least, from a few fundamental elements. The small number of elementary substances was not, however, always known or even suspected. Only little by little, as science advanced and experiments became more precise and more numerous, was this truth borne in upon men's minds as an irresistible fact. Substances which but a few generations ago were thought to be elementary have been made at last to yield to the efforts of analysis, and though this has had the immediate effect of somewhat increasing the list of elements,¹ the belief is gradually gaining

¹ Only twenty-three elements were known in the lifetime of Lavoisier, now we are acquainted with about three times that number.

ground, at all events in some quarters,¹ that the number of *absolutely* ultimate substances is exceedingly small. Indeed, there are not wanting those who believe that a day will come when we shall be able to reduce every known object to two or three—or even to one—universal substance ;² a day in which we shall see even in the most complicated and intricate forms and appearances nothing more than the effects and results of various groupings, combinations, and affinities.

If, indeed, we accept Sir W. Thomson's explanation of matter—and Sir W. Thomson is an honourable man—we shall find no difficulty whatever in admitting such a view even at once, and without awaiting that future day

¹ Quant aux atomes pondérables, la nouvelle théorie permet déjà de supposer qu'il n'y en a que peu d'espèces, peut-être même une seule espèce réellement élémentaire. C'est là déjà une grande simplification ; mais le progrès le plus important, c'est l'affirmation claire, précise, et de jour en jour plus probable, que tous les phénomènes élémentaires dont les combinaisons forment le monde matériel, ne sont que des simples mouvements mécaniques.—*Les Confins de la Science*, etc., par Carboneille, p. 101.

² That which is permanent or indestructible in matter is the ultimate HOMOGENEOUS atom : and this is probably all that is permanent, since chemists almost unanimously hold that so-called elementary molecules are not really simple, but owe their sensible differences to the various groupings of an ultimate atom, which is alike for all.—See Fisk's *Unseen World*, p. 23.

to which so many are now looking forward. For he assumes the existence of "a perfectly continuous incompressible and frictionless fluid pervading space". And the atoms of matter, he considers, "consist of portions of this fluid in a state of vortex motion. These vortex atoms constitute the matter which we experience. They are elastic, indivisible, and indestructible, and are believed to account for all the known properties of matter. . . . It is the vortex motion given to a portion of the fluid substance which constitutes the atom and endows it with its natural properties," the "fluid substance," of course, being the same everywhere.

In fact, as Savage observes, when commenting on the advance made by science in recent times, "we are settling it rapidly that all this material universe is one substance," and again: "we expect to find not fifty or sixty chemical elements, but only one". As a single illustration of the general proposition, let us consider for a moment two of the most unlike, and in the judgment of unscientific minds, two of the most opposite objects upon which the eye can rest—*viz.*, a piece of charcoal and a diamond. How worthless is the one object, how priceless the other ; how bright and

glittering is the second, how dark and dull is the first; how transparent and clear is the diamond, how opaque and black is the charcoal. What resemblance, indeed, will the uninitiated suppose to exist between the soft, sombre and unattractive piece of charcoal lying in a kitchen-grate, and the hard glistening diamond of fabulous price set in purest gold, and cushioned on the bosom of a princess? So far as outward appearance, colour, form, weight, beauty, and texture are concerned, we know not what are more strikingly opposite and unlike. Yet in sober truth both the one and the other are precisely the same thing, but in a different state or condition. The dull charcoal and the glittering gem are but two forms of carbon. Burn both in oxygen, and it will be found that both will give (*a*) the same weight, of (*b*) the same product—*viz.*, carbonic acid, which is a convincing proof of their chemical identity, and a sound argument in favour of their being, at bottom, in very truth, one and the same thing. In fact the charcoal might, by a purely natural process, one day become the diamond, and the diamond, in an equally simple way, become the charcoal.¹

¹ This example of the same substance existing first as charcoal and then as a diamond seems to me a very beautiful, and

It is not necessary, however, to seek examples from chemistry, or to have recourse to any strictly technical knowledge. Even the most simple and unscientific person may form some rude notion at least of the fundamental resemblance of apparently wholly different objects, by noting to what a large extent one may actually be converted into the substance of the other, and incorporated with it by the natural process of growth and development.

Thus, the moist soil is but the broken, pulverised and decomposed detritus of the rocks ; this supplies in a large measure nourishment, and the means of growth to grass, herbs, shrubs, and trees : these in their turn provide bird and beast, and every creeping thing, with suitable and nutritious food : while birds and beasts, as well as all kinds of vegetable growths, serve, in their turn, to maintain the life, health, and vigour of man's body ; being transformed in a marvellous way into bone, muscle, blood, flesh, and fibre.¹ The body at death, decom-

at the same time a very suggestive, illustration of the difference in the human body before and after its resurrection—it is buried, so to say, as charcoal, and rises as diamond—preserving all the while its identity.

¹ “L' uomo è veramente un piccolo mondo, un essere complesso che contiene la maggior parte degli elementi dei corpi, e metalloidi è metalli, in minime quantità; elementi che

posing after a time, restores again, by an almost equally admirable process, the various elements which it had borrowed for a brief season, and which are now re-absorbed by earth, air and water.¹

This continual flux and reflux, this never-ending change and interchange of form and substance ever going on, will perhaps suggest to the ordinary mind the general identity of the ultimate elements of all material substances more readily than even the exact and elaborate experiments of the chemist or the natural philosopher. In any case, there is nothing to be gained by a more detailed exposition of this general fact ; so we will at once pass to another admitted principle.

SECOND SCIENTIFIC FACT.—Another fact to

circolano in lui formando i suoi organi e mantenendoli in vigore : *elementi che vanno e vengono da lui ai corpi circostanti con uno scambio meraviglioso*, etc.”—*Studi di Cosmogonia*, by F. Coccolicciardello. 1888.

J. A. Picton writes : “Professor Huxley told us that all organisms, from the lichen up to the man, are all composed mainly of one sort of matter, which in all cases, even those which are at the extremity of the scale, is almost identical in composition, etc.”

¹“Was der Mensch ausscheidet, ernährt die Pflanze. Die Pflanze verwandelt die Luft in feste Bestandtheile und ernährt das Thier. Raubthiere leben von Pflanzenfressern, um selbst eine Beute des Todes zu werden und neues keimendes Leben in der Pflanzenwelt zu verbreiten.”—Moleschott, vol. i., p. 31.

which it will be well to draw attention in the present connection is that the absolute amount of matter, or, in other words, the sum total of all that exists in the material universe, is ever a constant quantity. (See Moleschott on *Unsterblichkeit des Stoffs*.) Its absolute bulk is unvarying and invariable. The forms or modes of existence may of course change, and shift a thousand times during one revolution of the earth, but not the substance, not that which underlies and sustains phenomena : that never can be interfered with. Take the simplest and readiest example. What to-day is hard rigid ice may roar along its rocky bed to-morrow as a foaming cataract ; then falling between the fissures of a volcano may emerge again as invisible steam, and finally escape into thin air in the form of oxygen and hydrogen to be then again inhaled by man and beast, and growing plants—yet, during all these transformations, not one particle of the original substance has been really lost or destroyed.

Or consider a somewhat different illustration. An acorn set in the earth may draw around it a thousand different materials, and build them up as no human architect has ever yet built, atom by atom, and molecule by molecule, into the stateliest and most majestic of forest-trees,

yet not a particle or fibre, not a twig or a leaf has been created. There is absolutely nothing in that lofty organic structure but what has been quarried out of Nature's depository. And as the oak which now *is*, and last century *was not*, has added nothing whatsoever to the sum total of matter, but has merely transformed and re-arranged on other lines, and according to fresh plans and designs, that which already existed; so, on the other hand, when the slow but relentless hand of Time has laid the majestic monarch of the forest prone upon the earth, and when it there decays and falls to pieces, or is used bit by bit to feed the winter's fires,¹ the ultimate particles still endure, and triumphantly resist all attempts at absolute destruction.

The same truth may be applied to the body of man. Though the human soul is a result of direct creation, nevertheless its earthly taber-

¹“Le carbone, par exemple, semble disparaître en brûlant; mais toute la masse du carbone brûlé se trouve dans le gaz produit par la combustion. Une plante n'augmente son poids qu'en empruntant au sol et à l'atmosphère des éléments qui représentent exactement toute la masse qu'elle gagne.”—*Les Confins de la Science*, par P. Carboneille, vol. i., p. 302.

“Pflanzen und Thiere verändern ihre Bestandtheile nur durch Stoffe, die sie der Aussenwelt entlehnen. Alle Thätigkeit im wachsenden Baum und im kämpfenden Löwen beruht auf Verbindungen und Zersetzungen des Stoff der ihnen von aussen geboten wird.”—Moleschott, vol. i., p. 32.

nacle is kneaded together from existing matter, and every cell and fibre of its expanding form is deftly woven from supplies already provided, long centuries ago, by a bountiful Providence.¹

The general law of Nature, which the foregoing examples are intended merely to illustrate, is so universally admitted, and is sustained by such unequivocal proofs, that it would be unprofitable, and indeed a mere waste of time, to insist upon it any further. The terms in which the law is expressed by the famous Lavoisier are probably familiar to most of our readers: "En fait de matière, rien ne se perd, rien ne se crée, tout se transforme".

THIRD SCIENTIFIC FACT.—We may now pass on to consider another important preliminary—*viz.*, the bulk of the earth, or what will serve our present purpose as well, its weight in tons. To determine the mass or the weight of our little dwelling-place would be an easy and simple task, if it were in all parts of uniform density. All we should have to do would be to measure its size accurately, and then, having ascertained the weight of one cubic foot, or yard, multiply the result by the number of

¹ "Aus der Nahrung wird Blut, aus Blut werden Gewebe, Muskeln, Knochen, Knorpel, Hirn und Nerven, kurz alle festen Theile des Körpers."—Moleschott, p. 143.

cubic feet or yards contained. Since, however, its density varies so very considerably, scientists have hit upon another method, tried by Herschel, and then tested by others since his time, and always with satisfactory results. The method referred to is both long and complicated, and supposes a profounder knowledge of mathematics than most people possess ; for this reason, therefore, and also because it is the conclusion, and not the means by which the conclusion has been arrived at, that really concerns our present inquiry, we may dismiss the abstruse calculations and elaborate experiments, and content ourselves with stating that in round numbers the weight of the earth is said by scientific authorities to be 6,000,000,000,000,000,000,000 tons.

We may now turn to consider the human race in its relation to the earth, and point out the interest that each individual possesses in his temporary abode.

Every soul of man borrows the substance of its body from the earth. The head and brain, the lissom fingers, the thrilling nerves, and the throbbing heart of king as of beggar, are one and all fashioned out of pre-existing matter. An army of a hundred thousand strong, marching in line of battle, is, after all, but moving

earth and painted clay. These hundred thousand men, stepping so gaily to the sound of martial strains, are as truly manufactured out of the earth's substance as the red coats on their backs, and the glistening shakos on their heads. The only essential difference being that, whereas their bodies were woven in the womb, their clothes were woven on the loom. But though the earth supplies the bodies of the soldiers as truly as their clothing and accoutrements, it is a mere loan—not a free gift. In order that the earth may not be unduly diminished in bulk, and in order that no disturbance or hitch may arise in the harmonious working of the solar system of which the earth forms a part ; and in order that no portion of its complicated machinery may be thrown out of gear, the earth—if we may so express ourselves—will not suffer any soul to fly away with its clayey vesture, which like a good and generous mother it had provided. When the soul quits this world, it is forced to restore all the fleshy organs of which it has made use : arms, legs, trunk, and, in a word, its entire corporeal outfit. In brief, it must return to the earth's keeping all that it has borrowed from it, particle for particle, and molecule for molecule. Were this restitution not insisted upon, consider the

absolute loss the earth would sustain in the course of ages, and the changes that would gradually be introduced in the configuration of the country, and in the nature and qualities of the soil. In one century, which represents, after all, but the merest moment in the life of the globe,¹ the surface of the earth would lose millions of tons of valuable loam, as may easily be shown by a little calculation. Thus : every four-and-twenty hours about 100,000 persons pass out of this world ; in one year the number would reach 36,500,000 ; in a century the sum

¹Tyndall in his Belfast Address says : "The public mind is now tolerant of the idea that not for sixty thousand years, nor for, etc., etc.—but for æons embracing UNTOLD MILLIONS of years, this earth has been the theatre of life and of death " (p. 35). And Charles Dollfus remarks that : "Il semble que déjà l'humanité incline vers la vieillesse " ; but he adds with considerable show of probability : "Je crois au contraire qu'elle est à *peine sortie de ses langes*, et que la force qui la possède n'est qu'au début de la carrière qu'elle doit fournir sur notre globe. Cent existences d'hommes placées bout à bout, occupent un espace de cinq à six mille ans ; prenons 50 ans comme l'âge moyen de la vie humaine en des conditions ordinaires, une année représenterait la 50^e partie d'une pareille existence. Que l'on estime à 5,000 ans l'âge de l'humanité depuis qu'elle est entrée dans l'histoire, en tenant pour non avenu tout le temps qui a précédé les temps historiques : sur cette double base, 100 années de l'existence de l'humanité correspondraient à une année de celle de l'individu : un siècle formerait une année de l'existence de l'espèce. On voit que 'l'homme universel' est encore bien jeune " (p. 188).

would rise to 3,650,000,000. Now, if we suppose a full-grown and well-developed human body to weigh ten stone (though twelve would probably be nearer the mark¹), and if further we suppose each of these three thousand six hundred and fifty million souls, on their departure from this world, to carry off ten stone weight of the earth's substance, then the earth would lose of its substance and be continually diminishing in size at the rate of 36,500,000,000 stones, or considerably more than 200,000,000 tons per century; or rather at a higher and higher rate each succeeding century as the population of the earth increases and multiplies, even supposing the death-rate to remain the same—though the death-rate generally rises with every perceptible increase of population.

Now the population of the earth is, as a matter of fact, continually increasing. During the past four thousand years—that is to say, since the Deluge—the human population has steadily increased from eight individuals to about 1,600,000,000. What then, we may well ask, will be the population of the world in another four thousand years, starting with its present population, not of eight individuals,

¹The average weight for Great Britain and Ireland is 158½ lb.

but of just two hundred million times that number? As the population, four thousand years ago, is to the present population, so ought the present population to be to the population of the world four thousand years hence (*i.e.*, $8 : 1,600,000,000 :: 1,600,000,000 : x$). On this calculation the number of persons living on the earth in the year A.D. 6000 should be about 320,000,000,000,000,000, supposing no special causes to arise to arrest the rate of increase. Or we may illustrate the same truth by referring to an instance in the past—*e.g.*, to our own country. At the time of the Conquest England did not contain a population of three millions; when Henry VIII. ascended the throne the population was still under five: and even at the dawn of the nineteenth century it did not reach ten millions, yet now it is nearly four times that amount.

The disastrous consequence, however, spoken of above is obviated by the fact that each soul uses its fleshy envelope only so long as it continues to sojourn in this valley of tears, and leaves it behind so soon as it wings its flight into invisible regions. This is, no doubt, a singular provision of an all-wise Providence, though, be it observed, only a provisional one, since Faith itself assures us that such an

arrangement is but temporary. When the last member of the human family has paid the debt of Nature, and the entire race has been garnered in, then the Archangel will come with a trumpet and a loud voice and summon the dead to arise from their graves : "Awake, and give praise, ye that dwell in the dust" (Isaias xxvi. 19).

Now the question that at once suggests itself is this—When every soul has claimed its body ; when all the men, women, and children that have ever existed from the time of Adam to McAdam, and from McAdam to the final crack of doom, demand once again from the earth the bodies and organs, the blood and bones, in which they once lived, loved, laughed and laboured, what will become of the earth? If this countless multitude, which no man can reckon, exceeding in number the very stars above us, and the grains of sand upon the seashore, and composed of every race, and nation, and tribe, and family under heaven, that has ever lived, assert their right to reassume the bodies they once occupied, and demand from the earth a full and complete restitution of every particle of which their bodies were formed, what will be left of the earth? When every soul has clothed itself with its

original corporeal form, taken again from the "slime," will there be anything at all left of the present little orb on which we dwell?

To us it seems extremely likely that there will not. It is, at all events, quite evident that a large portion of the globe must be used up in the reconstruction of the risen bodies—and this being the case, it would seem more congruous and fitting that the *entire* earth should be so utilised than that one portion only should be devoted to such a purpose, while a broken and shrunken relic is left to wander through space as an impoverished and wasted planet, a mere fragment of its former self. In any case, it is an incontrovertible fact, if we admit that the substance assumed by a single soul on the resumption of its body diminishes the bulk of the earth *in any degree whatever*, that we must admit also, what after all follows with the irresistible force of simple logic, that the absorption of the entire earth must depend solely on the number of bodies it will be called upon to supply from its own substance.

Let us go into the matter a little more carefully. We will begin by calling attention to three familiar propositions. The first is proved both by sacred Scripture and by scientific experiment; the second is a simple article of

Catholic Faith ; and the third is a self-evident truism.

FIRST PROPOSITION.—Every human body after death returns to the earth from which it was taken.¹ In Holy Writ it is stated that “the dust shall return into its earth from whence it was, and the spirit shall return to God who gave it” (Eccl. xii. 7). And again, in the 20th verse of the third chapter, we are reminded that, so far at least as their bodies are concerned, men and beasts are alike, for “of earth they were made, and into earth they return together”.² Science corroborates this

¹We are not, of course, including the sacred Body of our Divine Lord, nor that of His blessed Mother, nor that of Elias or of others who may have been exempted from this law, as possibly St. Joseph.

²“Die Hernahme des Leibes aus der Erde weist darauf hin, dass der Stoff des Leibes der nämliche sein soll, wie der Stoff, aus welchem die Leiber der übrigen irdischen Wesen geformt sind, dass daher der Mensch nach der Substanz seines Körpers von diesen sich nicht unterscheiden und so auch natürlicher Weise, wie sie, irdischer Nahrung bedürfen und wieder in Staub zerfallen solle, wie diess schon gleich Gen. iii. 19, und später namentlich Pred. iii. 19-21, und xii. 7, hervorgehoben wird. Ebendadurch soll der Mensch als *terrigena* (Weish. vii. 1, γηγενής) und de terra terrenus (1 Cor. xv. 47) auch um so stärker von den Engeln als himmlischen Wesen unterschieden werden, indem ihm nicht bloss ihrer rein geistigen Natur gegenüber ein wahrer Körper, sondern ein irdischer und darum gebrechlicher oder corruptibler Körper zugeschrieben wird, etc.”—*Kathol. Dogmatik*, von Dr. M. Scheeben, Zweiter Band, p. 142, § 379.

statement and declares even from its own experimental knowledge that no particle of the body is irretrievably lost or annihilated, but that every minute fragment and invisible atom is preserved, whether it assume the appearance of dust, or whether it take the form of gas or water or aught else.¹

SECOND PROPOSITION.—Every soul of man shall, by the decree of God, resume the body that it once animated in this life, and will again be clothed in its flesh. The Holy Spirit, speaking through the mouth of Job, expresses this doctrine in the following well-known and forcible passage : “ In the last day I shall rise out of the earth, and I shall be clothed again in my skin, and in my flesh I shall see my God, whom I myself shall see and my eyes shall behold and not another ” (xix. 25-27). And in the Apostles’ Creed we all say, “ I believe in the resurrection of the body ”.

THIRD AND SELF-EVIDENT PROPOSITION.—The

¹ “ De ce que tel animal pèse aujourd’hui cent kilogrammes, nul ne conclut que, depuis sa naissance, l’univers a gagné la masse correspondante ; on sait par des expériences précises que cette masse a été prise toute entière dans des corps qui la possédaient avant cet animal, et que, s’il n’avait jamais vécu, elle ferait également partie de la masse totale. Jamais l’expérience bien interprétée n’a donné un démenti à cette loi.”
—*Les Confins de la Science*, par P. Carbonnelle, vol. i., p. 302.

earth cannot at the same time both give and retain. It cannot possibly give of its substance to reconstruct the bodies of risen men, and yet remain undiminished and unchanged in bulk. Consequently the demands made upon the earth by its innumerable creditors must necessarily diminish its substance in some appreciable degree. But this being once granted, the further question, *viz.*, whether the demand will equal the supply, still remains to be considered. Indeed, whether the satisfying of all these claims will drain the earth of its entire substance or not must depend simply and solely upon the number of its creditors. It must depend upon what the total aggregate of souls may be when the last day dawns—a question, the answer to which, in its turn, depends upon the future duration of the present order of things.

Put the case hypothetically. Thus : If the subtraction of one human body from the substance of the earth diminish its bulk in any degree whatsoever—say by $\frac{1}{x}$ —then the subtraction of x bodies will reduce it to nothing, or, in other words, will absorb and use up the whole. But since x is necessarily, and from the very terms of the proposition, a finite number, it

THE FINAL DESTINY OF THE EARTH.

must at length be reached (if the race continues to propagate its species) within a certain definite and limited period, which, for the sake of clearness, we will call z .

Now z is a period, the length of which is absolutely unknown to man : for though it opens with the creation of Adam, yet the day and hour on which it closes St. Matthew tells us : " No one knoweth, no, not the angels in heaven, but the Father alone " (xxiv. 36). Any difference of opinion, therefore, as to the precise fraction of the earth absorbed by a single body will interfere in no way with the truth of our hypothesis, and may easily be adjusted to accommodate the theory by prolonging or diminishing (as the case may be) the unknown interval which is yet to elapse between the present moment and the Judgment Day.

What, therefore, is to hinder us from entertaining the view that it is God's design to convert the whole of the existing globe into the very substance of the risen bodies, whether they be the bodies of saints in glory or of the reprobates in hell? The task we have proposed to ourselves is not to prove that this really is His design, but to point out that it *may* be, and that (strange and curious as it undoubtedly ap-

pears) there is yet nothing in the nature of things to conflict seriously with such a consummation. This will be more readily grasped, perhaps, if we express the theory algebraically, thus : Call the number of ultimate atoms in the entire substance of the earth—" A ".

Call the aggregate number of atoms contained in the bodies of all men that have ever been created to the present instant—" B ".

At the present hour " A " exceeds " B ". But while " A " is *ex hypothesi*, a fixed quantity, " B " is receiving additions every passing moment ; in fact, at every single birth the value of " B " is approximating nearer and nearer to the value of " A," and at the rate of something like $100,000 \times 10$ stones = about 6250 tons per diem. If therefore sufficient time be allowed to elapse, a moment must at last arrive when " B " will *exactly* equal " A ". At the moment in which " B " equals " A," let the last trumpet fling its glad summons far and wide, and make the welkin ring with its joyous notes ; then the rising bodies flying at a tangent from the earth, will leave nothing behind them of a material world. The ball of earth, which a moment before was whole and entire, will then—like the ball formed by a swarm of bees, when the bees fly off—be broken up, and

divided into as many parts as there are human beings; for every soul will depart, bearing away its glorified body as an independent and distinct entity. The earth will no longer exist, as we now know it; it will be, indeed, as St. Peter says, "a new earth," an earth no longer moving round the sun as a dark and sullen mass, but an earth consisting of the unnumbered hosts of glorified human forms revolving for all eternity around the divine Sun of eternal justice in heaven.

How long the human race would have to continue propagating its species in order to provide creditors enough to absorb the entire ball of earth cannot be accurately or even approximately determined. We will remind our readers, however, that a very much larger number of bodies will be demanded from the earth than are reckoned by our statisticians, or than are entered on the registers of the country. In making even the roughest calculation we must not fail to bear in mind the following facts :—

1st. That every infant that dies will claim a perfect and fully developed body at the time of its resurrection, and will rise in a state of perfect manhood, or, as St. Paul expresses it : "In virum perfectum, in mensuram ætatis

plenitudinis Christi" (Eph. iv. 15). "Omnes homines," says St. Thomas, "resurgent ejus staturæ cujus aut erant aut futuri erant in juventute."

2ndly. That every soul created, even though it is never brought forth alive from its mother's womb ; yea, even though it depart this life the moment after conception, will possess a like claim to the matured body of an adult.

3rdly. That thousands of infants perish annually,¹ of whose existence no one but their parents know anything, and of which, consequently, there is no record kept. In China and among savage tribes, for instance, infant life is sacrificed in a way that is perfectly appalling, yet every such life must be added to the vast myriad of those to whom the earth will have to furnish a corporeal form.

Such is a brief statement of the theory. There is something fascinating in the idea of the whole of our present habitation—the seas and mountains and wooded plains, the sandy

¹ We may form some idea of the multitudes which this one item will include by considering a single town, *e.g.*, Paris. "En France même, la population de Paris sacrifie, *tous les ans*, avec une incurie qui n'est pas absolument inconsciente, un tribut de quinze mille enfants, sur vingt mille en nourrice dans les villages environnants!"—See *Revue des Ques. Scientifiques* (1882), p. 467.

deserts and grassy meadows, the towns and villages and massive monuments, and all else on earth—some day forming a part of ourselves ! It certainly gives a wider meaning to the idea of the resurrection ; since on this theory the very earth itself will rise to a newness of life in the bodies of the re-fashioned race of men.

The mind may perhaps recoil and stagger under the thought of the immensity of the period during which new generations must yet continue to be born before the number of souls can reach a total sufficient to drain the earth of its entire substance when they are re-united with their bodies ; but given a sufficient period, and the result must certainly follow, and judging from the teaching of geologists, there ought to be little difficulty in supposing such a period—at least, as possible.

We have of course no certain data to enable us to come to any really satisfactory conclusion as to the future duration of the race. If, however, we judge from analogy, which is after all the only available means left to us, we must certainly own that, if the race of man be not still in its cradle, it is at all events not yet out of swaddling-clothes.

Is it not a generally received principle that less time should be spent in manufacturing an

article than in utilising it when manufactured? A shoemaker will not spend a week in making a pair of boots which will wear out in one day. A tailor will not toil for the space of a month in preparing a hose or doublet which can only be worn for the space of a week. The body of a bird does not take weeks in forming in the shell, to endure but for half that term when it is at last complete. A sailor expects to use his boat for a longer period than that which was spent in putting it together; and any Government would think that five years spent in building a man-of-war were five years ill-spent if the ship would yield only five months' service. A king would never dream of devoting ten long years to the construction of a sumptuous palace with the purpose of dwelling within it for the space of ten days; nor does a watchmaker pass weeks in fashioning a watch which is only to go for an hour. If any conclusion whatsoever is to be drawn from these, and 10,000 similar instances that might be adduced, it is that the period during which the earth was being prepared and fitted up and furnished for man's dwelling-place must be very much shorter than the period during which man is destined to occupy it. In fact, everything would seem to suggest that if God built up the material world

as man's habitation, that it must be God's intention that man shall use it and sojourn upon it, to say the least, for a period of time considerably longer than that which it took in making. Thus, if the earth took x number of years to build, then we might reasonably expect the tenant to reside in it at least some $25x$ or $50x$ years. But what is the value of x ? Who shall determine how long the earth was in forming? This question has not always received a uniform answer; but if we are to trust the greatest scientists and geologists, we shall be quite safe in putting it at many millions of years.

Sir Charles Lyell is accepted as a great authority on all questions connected with the formation of the rocks and the different strata, and he tells us that, though he is not prepared to say exactly how long the earth took to build from the first laying of its foundations, yet, that some 240,000,000 of years have elapsed since the formation of the indubitably fossiliferous rocks. Which is very much as if the builder of St. Paul's, London, should say, I cannot state precisely how long it took to erect the Church of St. Paul's; but it took 240,000,000 years to put the ball on the dome, and to erect and gild the cross above it—the proportion

between the fossiliferous rocks and the rest of the earth being roughly as between the ball on the dome and the rest of the church.

Mr. Charles Darwin puts it at even a higher figure ; for he claims more than 300,000,000 years for the formation of the tertiary rocks alone, which form quite an insignificant fraction of the whole of the earth's bulk. In fact, as the well-known American geologist, James Dana, remarks : " By the tertiary period, the earth was already hastening on towards its last age " (p. 591).

What, then, shall we say of the unnumbered series of ages that lie at the back of this time ? Thousands of millions of years have been claimed by geologists since the earliest forms of vegetative life appeared, and yet the dawn of life is comparatively but a recent event, so that, on that theory, even *thousands of millions of years* represent but a small fraction of the period preceding the first beginning of life, when as yet the earth was too intensely hot to sustain any living organism.

We know that the earth was once a globe of molten rock, like the sun in brightness and nature. Now without attempting to form any opinion as to the length of time necessary for it to cool down sufficiently to enable man to

breathe its atmosphere, we will merely remind our readers that Professor Helmholtz has calculated that (setting aside the ages it took to cool down to $2,000^{\circ}$ C.), supposing it to have reached that point, it would then take three hundred and fifty millions of years more to cool down (from $2,000^{\circ}$ C.) to 200° C.

It is true physicists are not by any means as liberal with their millions of centuries as geologists; if, however, we follow the latter, there will be no difficulty in our estimating the length of period during which our earthly abode was built up from its earliest foundations at many thousand millions of years. This being allowed, we may then judge, from analogy, that the period during which man is to make use of his wondrous abode will be some thousands of thousands of millions of years.

In any case, the future duration of the race can hardly form a difficulty against the theory of the earth's final destiny suggested in the foregoing pages. Indeed the most obvious difficulties, if difficulties they may be called, against this theory arise from certain passages in Holy Scripture. Thus, for instance, it is said in the third chapter of the Book of Joel, the prophet: "I will gather together all nations, and will bring them down in the valley of

Josaphat, etc.," from which some have inferred that all men will be summoned there at the last day to receive sentence from the lips of the Supreme Judge ; but as this is by no means certain, and, indeed, a mere conjecture, it can hardly be taken as a serious obstacle to the acceptance of the hypothesis.

So, again, St. Peter speaks of *new* heavens and a *new* earth (2 Peter iii. 12-14). St. Gregory, however, explains this text by saying that "the earth will pass away so far as its present *form* is concerned, but will continue for ever so far as its *substance* is concerned"—an explanation which leaves us free to accept or to reject the theory we are discussing. Indeed, the only points upon which commentators seem to be thoroughly agreed may, we think, be reduced to two : the first is that the substance of the earth will not be annihilated ; and the second is that its form will be changed and beautified.¹ What precisely its future form will really be, however, is, as theologians admit,

¹"È opinione quasi comune dei Padri della Chiesa che la Terra ed il mondo periranno non sostanzialmente, ma quanto alle esteriori loro qualità, e saranno cangiate tutte queste cose in meglio, ma non distrutte,—così i SS. Giustino, Cirillo, Crisostomo, Basilio, Tommaso, etc."—*Studi di Cosmogonia*, per F. Coco-Licciardello.

by no means so explicitly laid down.¹ So that we are not deterred from accepting the new theory by any such considerations as might arise were the teaching of theologians on this subject clear, decisive, and authoritative. This is no place to enter upon a discussion of the merits of Scriptural objections. Such a treatise, indeed, would involve an entire chapter to itself ; so we must rest content with a mere expression of the opinion above enunciated, *viz.*, that between our hypothesis and the inspired volume there is no essential antagonism.

¹ Professor Jungmann, for example, speculating on this subject, remarks in conclusion : “ *Quamvis his de rebus non ea constituere possimus, quæ plane certa sint et explorata, congrue tamen nova illa terra supponitur futura similis astris, fulgore et splendore insignis* ” (*De Novissimis*, p. 287)—a clear acknowledgment that, in his opinion, nothing certain can be stated as of faith.

MAN OR APE ?

“ Man is descended from a hairy quadruped, furnished with a tail and pointed ears, probably arboreal in its habits, and an inhabitant of the old world.”—DARWIN, *Descent of Man*, vol. ii., p. 389.

“ Que l'homme s'examine, s'analyse et s'approfondisse, il reconnaîtra bientôt la noblesse de son être, il sentira *l'existence de son âme*, il cessera de s'avilir ; *il verra d'un coup d'œil la distance infinie que l'Être suprême a mise entre lui et les bêtes.*”—BUFFON.

FAITH alone can teach man his true position. Whenever left to determine this question for himself, he invariably errs by excess or by defect. In bygone years it was customary to exalt human nature beyond all limit ; to raise corruptible men to the position of gods ; to build altars to them and to offer incense at their shrines. We find pagan temples filled with the images of heroes and heroines, who were honoured with supreme worship, and treated as divinities. Now, the changing pendulum of human judgment has swung to the opposite view. If in past centuries men

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were placed among the gods, as in the Olympus of the Greeks or in the Walhalla of the Scandinavians, there to receive divine honours, now woe to any man who dares to aspire to be anything better than a beast. He would be denounced as behind the age, and strangely ignorant of the important disclosures of modern science. Like the guest at the wedding feast, who began by incautiously seating himself too high, and then through very shame proceeded to take the lowest place, man, who began by claiming divine honours, now thinks it necessary to renounce even those which are human. He professes to be nothing more than a developed monkey — an orang-outang, a baboon, or a tailless catarrhine anthropoid ape,—or at least a descendant of one of their remote ancestors, with whose plastic form the passing ages have taken strange liberties, moulding and kneading it until it has reached its present human condition !

It is a clever child that can narrate its own early history from conception to birth, and recount all its experiences, impressions, and feelings when living within its mother's womb. Yet this would be a trivial task compared to that undertaken by a certain class of modern scientists, who have written detailed accounts

of the progenitor of our race, and who have undertaken to trace every step in his development, with all the confidence and minuteness of an actual observer, from a mere dab of protoplasm to a simple cell, from a cell to a mud-fish, from a mud-fish to a ring-tailed spider-monkey, and so on and on, till at last we find him seated in the professor's chair at the university, clothed with cap and gown, lecturing on his own descent.

Here we may listen to him, as he solemnly informs his hearers that the present race has sprung from an elder branch of the anthropoid apes, and that so far from being created "a little lower than the angels," men have, by dint of much labour and suffering, succeeded in raising themselves a trifle higher than the brutes. In fact man is but a brute. His nature and character are indistinguishable, except in degree, from that of the lowest and loathsome animals that inhabit the plains or range through the great forests. Man's highest faculties and capacities are mere acquisitions, and the fortuitous results of "a favourable environment," of "the survival of the fittest," and of "the general struggle for existence," and so forth. Except for such accidental circumstances he would be no better than the

beast that perishes, and even now he can only be considered as "*primus inter pares*".

What a debased condition of mind such a doctrine, calmly proposed and eagerly accepted, indicates ! What an illustration is its marvellous diffusion of the materialistic tendency of the age ! Men seem to have lost the power of throwing their thoughts beyond the limits of mere sense, and are quite ready to argue an identity of nature and essence from a mere external and wholly unimportant organic resemblance.

The superstition of man's ape-descent, which unhappily is gaining ground in some quarters, though in others we are glad to find a reaction setting in, arises from neglecting and despising the very basis and only essential condition upon which man's real greatness rests, *viz.*, his soul.

Material-minded scientists, with mere sense perceptions, notice a resemblance between man's corporal frame—his mere external envelope—and that of the ape. They study with infinite pains the morphological and physiological formation and growth of the material part of the man and the beast ; and, noting the close similarity in *some* respects, conclude an equally close similarity in *all* respects. Upon

the only really vital distinction, namely, the soul, they lay no stress whatsoever ; probably because its presence cannot be verified either by the scalpel or by the microscope.

Yet, the likeness of man's material part to that of the beast is no recent discovery. Has he not always been considered, in all that relates to his physical being, an animal as truly as any other? Does he not live by food, and breathe the air, and feel the cold of winter and the heat of summer as truly as others? Will not the water drown and the fire burn one as readily as the other? And when death comes and arrests the action of the heart, and stiffens every limb, does not the body of the king and the philosopher corrupt and fall to pieces like that of the lowest beast and resolve as surely into the same gases and primordial elements?

No one—be he saint or theologian—denies the animal nature of man's body. No! It is not that which we have in view when we extol and celebrate his grandeur and nobility. It is rather the great and immortal principle that animates that body,—that stirs in every limb, that throbs in the over-burdened heart, that strives in the seething brain—that immaterial essence that looks out of its prison house of clay, and gazing beyond this puny earth, inter-

pretends the signs in the heavens, measures the distance and magnitude of the stars, traces their paths through sidereal space, or turning to earth, reads its history in the very rocks, robs the seas and the mountains of their hidden treasures, and compels the powers of Nature to serve its purpose and to do its will. Yes, it is this active, energetic secret principle of life, of thought, of love, that we have in our minds when we think of man's greatness; not the corruptible vesture of vile clay with which it is momentarily encumbered, and which may be thrown away to-morrow and made to feast the worms. "On earth there is nothing great but man," says the poet, "and in man there is nothing great but soul."

It is true that even though our examination were confined to bodily structure we should still discover many and important contrasts between man and all inferior animals. This is undeniable. Yet, it is not a matter of any great importance, nor a point we need waste any time in discussing. The most advanced scientists have pointed out a number of striking differences—especially in the size, weight, and convolutions of the brain; in the form of the skull, and the relative proportions of certain parts of the skeleton, etc.

These are some of the chief points of divergence. Many others might be mentioned, but there is not the slightest need ; in fact my whole purpose is to show that the very foundation of the distinction between man and beast is wholly independent of all such physical differences. So far as our argument is concerned, they might or might not exist.

I may here, however, call attention to a very common objection, urged with considerable effect by our opponents. They endeavour to cut the ground from under our feet by assuring us, with an extraordinary arrogance of superior authority, that no one without an intimate knowledge of anatomy, physiology, and morphology is in a condition to form any opinion whatsoever as to whether there be sufficient grounds for believing in man's development from the ape or not. That, in fact, unless a man has passed through the schools of medicine, and has every artery, nerve, bone, and articulation at his fingers' ends, he has no business to form a judgment of any kind ; that, to speak plainly, his only proper attitude is one of silence and respectful attention to the oracles of science.

This may be a very convenient way of forcing down our throats a hostile creed, and

compelling orthodox believers to hold their tongues, but happily it is in no way a contention we are bound to respect. And why? Well, for this reason, that the question is rather a question of philosophy than of comparative anatomy; and further, because we may grant, even without examination, all the close physiological resemblance that is supposed to exist *on the authority of scientists alone*, and still be more than ever persuaded of the infinite and wholly impassable gulf that separates man from the most cultured ape that ever scrambled up a cocoanut tree, or swung by its tail from a bough of the baobab, or (in scientific language) the *Adansonia digitata*! Nay, we are prepared to go further than even the most exacting man of science. We will allow, not merely all that he asks, but a great deal more, and will prove that, this notwithstanding, man is something more than a developed gorilla.

For many years past it has been the ambition of naturalists to discover some creature that should resemble us more nearly than any yet known. Let us suppose such hitherto fruitless searches to be at last crowned with complete success, and that in the year 2000 the perfect remains of an extinct race of monkeys are discovered in some land just raised by "a freak

of nature" above the level of the sea, beneath which it had been till then submerged. During an indefinite number of centuries they had lain entombed and hermetically sealed in some convenient recess, like the famous pre-historic toad of the *London Times* 20,000 years old, and, in September, 1888, *still living!* (see Sept. 25, 1888). At last they are brought to light and submitted to a most careful and exhaustive examination. Every nerve, artery, muscle, bone, articulation, gland, duct, fibre, and cellular and other tissues have been preserved and are now made to submit to the most delicate and exquisite tests. Not the smallest fibre or microscopic cell (we will suppose) escapes observation. We will suppose—what has never yet been shown, and what never will be shown—that the discovered bodies resemble the body of man in every particular. We may even assume that they are indistinguishable, nay, positively identical with the body of the most highly cultured and intellectual man that ever lived.

What then? Does that prove man's bestial origin? Does it even tend in any measure to give weight to the theory of man's identity with the ape? Prove it! Just the reverse. For if two creatures—say a Shakespeare and

an Orang-outang—be exactly alike in body, we can no longer seek in the material structure of either the secret cause of their extraordinary difference in character, in disposition, in faculty, habits of life, tastes, preferences, and moral nature. The underlying cause—for a cause there must be—cannot be in the body, since the bodies, *ex hypothesi*, are co-equal and similar; therefore it must lie in what is distinct from the body—in what is immaterial and spiritual.

Thus a discovery which agnostic naturalists think would serve to clench their argument, would in reality only supply us with a fresh proof of the existence of man's reasoning soul; and would render yet more emphatically necessary the hypothesis that man possesses a spiritual substance, as the principle of life and thought, not shared by the lower orders of creation.

Man's life is essentially different from that of the brute. Man speaks, the brute is without articulate speech. Man has a sense of right and wrong, of true and false, of justice and injustice, of virtue and vice: a sense of responsibility; a perception of the ludicrous, of the incongruous, of abstract ideas, and of beauty, of harmony, etc. Man can think, argue, deduce consequences, feel genuine shame and remorse,

and can exhibit pure affection and generous love : not so the brute.

In a word, a cursory glance enables us to detect a vast number of psychological and moral differences. It will not much interfere with the strength of our argument if we even admit for the moment the absurd contention that the differences are but differences of degree, and not of kind ; for the extraordinary differences even of degree, which *all* must admit, require an explanation as peremptorily as differences of kind.¹

But whence do such differences arise ? Not from any difference in the organism, or nervous structure, or in the convolutions of the brain, since *ex hypothesi* no such corporal divergence exists. Then it must be in something distinct from organism, in something which man possesses and the beast lacks, in something independent of matter—in a word, we are compelled to admit, as the only conceivable explanation, a rational, intelligible, spiritual substance, or, in plain words, a human soul as distinct from a bestial soul.

¹ Darwin writes : " The difference in mind between man and the higher animals, great as it is, is certainly one of *degree*, and not of *kind* " (*The Descent of Man*). Such doctrine is of course *contra fidem* if it be intended to imply that man's mind is but a development of the brute's.

Thus, so far from similarity in physical structure proving man's identity with the monkey, it proves more forcibly than ever the validity of his claim to the possession of an invisible and immaterial principle such as no other visible creature possesses. We are constrained either to admit this, or else to leave the difference of life and conduct in the two beings wholly without an explanation—*i.e.*, to assert an effect to exist without a cause, *quod est ridiculum*.

No! Let us look the fact straight in the face. The glory and dignity of man lies not in his body, however comely and beautiful. His pre-eminence is due to that marvellous intellectual principle to which we give the name soul. It was only when God had breathed the *spiraculum vitae* into the prepared clay that man was really made. The soul is the seat of his royalty and the secret of his greatness. Blot out man's soul and you blot out the image of God; deny that and you strike the sceptre from his hand and the crown from his head. It is the gifts inherent in the soul—above all, the gifts of immortality, of reason, of memory, and of free will—that raise him up and set him on a pinnacle above the rest of the visible creation.

Time and space alike forbid me to attempt

to dwell upon each of these gifts in detail. A word on the most important and the most mysterious will sufficiently help us to think out the rest for ourselves. Let us, then, say a few words on the attribute of immortality.

Man's soul is immortal. Once produced by the omnipotence of God, it must endure for ever. The body will crumble away, disease will plough deep furrows in the cheek, the limbs will totter and sink beneath their burden, until the entire organism at length falls to pieces and disintegrates; but the soul lives on. All else will decay and pass; not the soul. Death comes and mows down the bodies of man and of beast, as the sickle cuts the poppy with the corn; yet Death's dart cannot pierce or penetrate the soul. While all else corrupts, and changes, and falls away, the soul remains unaffected. As delicious music to the ear, so is this thought to the heart of the wayworn pilgrim of earth, so let us still speak on. The soul witnesses changes in all else, but it does not share in them. It is like the rock in the midst of the restless ocean: the tide of events rolls by, but it remains unmoved. Peoples come and go, generation follows generation, as the waves of the sea; empires spring up, rise to eminence, and crumble away when their

day is done ; but the soul is ever young and knows no decay. Amidst the unfolding of new planetary systems, as well as amid the crash of falling worlds, the soul is still the same. Its life is endless and eternal. Centuries cannot measure it, nor can numbers represent it. The longest earthly life compared with it is less than a pulse-beat, or the smallest fraction of an instant. There is indeed no proportion between time and eternity ; and yet it is for eternity we are made. This would scarcely be a fitting statement to make in this connection were it *merely* the teaching of faith. It is because, *independently of all supernatural revelation*, we have witnesses to this truth stirring and palpitating in our own hearts, that I now briefly refer to it as an evidence of a spiritual and superior nature unknown to any other inhabitant of earth.

Our whole being feels the inspiration of immortality. It forces itself upon the mind of even the untutored savage. The very pagans exclaim, "Non omnis moriar," "I shall not wholly die"—no, not my mind, not my spirit, not the chief part of me. The unfledged bird feels not more instinctively that it is not destined to dwell for ever within the narrow circle of its nest, than we feel that we are not

made to dwell for ever within the confines of earth. What is the interpretation of all these yearnings that rise within our hearts, those longings for better things, those strivings after an impossible ideal? What are they but indications of the reality of a life beyond the narrow limits of earth—limits both as to time and as to space? Why will man's spirit never rest, never feel fully satisfied, never be wholly filled while in the corruptible flesh, but because he is made for something brighter, fairer, and far more beautiful than anything that earth has to offer him? How else, indeed, account for our present deplorable state? There is no other solution possible but that which faith suggests and declares.

We have lived but a few years, and already have we learned the vanity and emptiness of all worldly joys, and how absolutely incapable they are of satisfying our hearts for more than one brief instant. Were this the only life, we should be the most wretched instead of the most enviable of beings. Other beings of more limited capacities are content with their lot; not man. The birds sing gaily through the limpid air, and there is no note of sadness in their song, and with joy unchecked by grief the sparkling fish dart in merry shoals through the

summer seas. But man has not yet reached his full perfection, and therefore is still a stranger to perfect happiness. Never does he pause amid the bustle and strife of life to listen to the secret beatings of his heart, but he hears it murmur of a home of peace and joy which he knows it is vain to hope for here, and which must therefore await him hereafter: for nature does not speak in vain, nor does it speak falsely—"vox cordis, vox Dei". All assures us that we are not as the flower that fades, nor as the butterfly which unfolds its beauty to one bright summer and is heard of no more. On the contrary, our whole nature demands a future in which our capacities may receive their full development, and every wish its complete satisfaction. As well distrust the hunger that craves for food, or the thirst that seeks the cooling waters, as mistrust the deep and fervid language of the heart. He who has implanted these longings within us is God, the author of our being and the infinitely Wise. And does infinite Wisdom create without a just and holy purpose? If He fills our hearts with insatiable yearnings after an eternal life of light and love, are we to suppose He has made no provision for their realisation? Impossible! The same God who instructs the new-born infant to seek

its nourishment at its mother's breast, ordains also at the same time that it shall not seek it there in vain : and shall we dare affirm that God, who plants the irresistible desire of eternal life in our souls, plants it there in mockery and derision ? A thousand times, no ! It is as certain as we live that, if He has so constituted our nature that it clamours for the eternal joys of heaven, it is simply because He intends to stay the cry He has raised, and to grant us one day the desires of our hearts. Did God give to the great whale its colossal proportions and prodigious strength that it might be confined like the amoeba in a miserable rain-drop, or left to find its home like the loathsome frog in some stagnant pond ? No ; since its nature demanded a wider field of action in which to sport and gambol, a wider field was provided for it in the boundless sea. And shall we nevertheless say that the soul of man has been given its fathomless depths, and its limitless capacities for happiness, to be starved, or left to languish on such vain pomp and idle pleasures as this life has to offer ? Perish the thought ! It is as insulting to God as it is outrageous to sound reason. Such dealing would be out of harmony with every lesson that nature teaches us of the wisdom, the

goodness, and the providence of the Almighty Creator, and contrary to all analogy.

All shows us that we possess the inestimable treasure of immortality, and will live for ever. Eternity awaits us, and even now stretches out its arms to enfold us. We are children of eternity, not of time. Such a truth is not merely most consoling, but it is one which must, when realised, exercise a most marked influence on our lives.

If made for eternity, then we must live for eternity ; and not entangle ourselves in the interests of time. If we are destined to live for ever, then we must not sacrifice everything for the vain and empty pleasures of a day, nor make any temporal pursuit whatever the end and supreme purpose of our life.

Darwinism has helped considerably to intensify the general apathy of men in the pursuit of the higher aims of virtue, and it is the duty of us priests to point that fact out. Look out upon the world around. Witness the lives of the multitudes. For what are they living? What is their great purpose in life? What thoughts are seething and swelling up from the secret recesses of their hearts? For the most part their thoughts are bent upon riches, honours, distinctions, influence, position, comforts, plea-

asures and amusements. The sight of so much folly should force from us scalding tears. For what is this life? A moment; a brief instant; a mere point of time trembling on the confines of eternity: a veritable nothing: utterly valueless except in so far as it is related to eternity, and wholly vain except inasmuch as it is the seed of future glory. Such is the true view. But let man but once persuade himself that he has been derived from a mud-fish, and that he is nothing nobler or better than a developed ape or a refined and improved monkey; that the distinction between him and the arboreal inhabitants of a Brazilian forest or an Indian jungle is one only of degree—of more or less—then but one more step remains to be taken, and that is to lead the life of a beast: to eat, to drink, to sleep; to indulge every sensual passion, and to follow every low and brutal instinct; to seek pleasure and delight in the indulgence of gluttony, intemperance, and impurity.

By destroying the belief in our high and exalted nature, and denying any essential difference between ourselves and the senseless beasts, we destroy the strongest, if not the only, motives for self-respect and self-restraint. Once inoculated with this virus, men will speedily return,

at least in disposition and character, to the condition of the beasts from which they are now pleased to boast their descent.

Let us draw the curtain over such revolting theories and such unsavoury doctrines, and listen rather to the voice of God, "Our Father who is in heaven," who, with ineffable love, informs us that we are made but "a little lower than the angels,"¹ crowned with glory and honour, and set over the works of His hands" (Heb. ii. 7). Only in proportion to the extent in which we realise our high estate, and keep the memory of it ever before us, shall we live up to the high standard set by Jesus Christ. *Noblesse oblige*. The tendency of modern science is to overlook our highest interests, and to induce us to forget what is in reality alone worth remembering : *Quod Deus avertat*.

¹ Allioli remarks regarding this text: "Die menschliche Natur unter die englische, nämlich *nur so lange sie auf Erden wallt* ; denn im andern Leben sind die Menschen wie die Engel des Himmels" (Matt. xxii. 30).—Vol. ii, p. 10.

THE RELATION BETWEEN RELIGIOUS TRUTH AND MATERIAL PROSPERITY.¹

“WO TO YOU THAT
ARE RICH, FOR YOU
HAVE YOUR CONSOLATION.”

—*Luke vi. 24.*

OBJECTIONS, accusations, calumnies and slanders, and false imputations of all kinds, are constantly being hurled against the Catholic Church. She is misunderstood, misrepresented, and caricatured by hundreds of thousands in every part of the world. Yet this fact should neither alarm nor surprise us. On the contrary. If our holy religion were never assailed, decried, and denounced, we might well begin to suspect that we had got into some false and heretical Church, and not into the one Infallible Church founded by Jesus Christ. For the true Church was destined to resemble her Divine

¹ Published originally under the title of “National Decay and ‘Romanism’”.

Founder, and to become, like Him, an object of scorn and derision, of accusation and unjust persecution. Our Lord actually foretold this in the clearest and most unmistakable language : “ I send you as sheep among wolves ” ; “ They have persecuted Me, they will persecute you ” ; “ You shall be hated of all men for My name’s sake ” ; “ They will put you out of the synagogues—yea, the hour cometh when whosoever killeth you will think that he rendereth a service to God ” (John xvi. 2). These, and many other passages of prophetic Scripture, sufficiently reveal what we have to expect. So, again, just as the infinite goodness and the absolute spotlessness of the Incarnate Word of God did not suffice either to silence the envious and malicious tongues of evil-minded men, or even to mitigate the hatred and vindictiveness of His accusers, so neither can the purity and sublimity of the Church’s doctrines shield her from the foulest and most unjust aspersions. Further : as the grave charges brought so repeatedly against Our Saviour Himself, of being a glutton, a wine-bibber, a blasphemer, and a seditious man, and one possessed by the devil, in no way prove Him to be really anything of the kind, so the charges which the world never wearies of bringing up against His Spouse the Church can

in no way throw a stain or a blemish upon her spotless character.

One of the most popular, and at the same time one of the silliest and shallowest objections, is founded upon the alleged want of prosperity of Catholic nations. Before entering upon a consideration of this objection, it may be well to give a few specimens of what I mean. Here is one from the pen of the Rev. T. D. Gregg, a Protestant clergyman: "Why," asks Mr. Gregg, "is Italy a degraded country? Why are Spain and Portugal degraded nations? Why is every country where the religion of Rome prevails degraded? Because the curse of God is upon them, because of the apostasy among them. Now turn your eyes to England, and ask why she is glorious, prosperous, and triumphant. Is it not because she exalts that God who exalts her? What is the reason that peace, happiness, prosperity, delicacy, and decency (!) prevail in England? Because in her the purity of the Christian religion prevails." There is a declaration of cause and effect, with a vengeance! Take another specimen from Dr. Robert Horton: "I want to ask you," says the learned doctor, "to cast your eye over the Catholic world, that part of the world where the Papacy is acknowledged, and where it is practi-

cally undisturbed by any Protestant elements. I ask you first to look at South America, that half of the great continent which was colonised by Catholic people, and has always remained the undisputed ground of the Catholic religion and influence. Now the southern half of the American continent presents the most remarkable, the most startling contrast to the northern half of the American continent, which happened to be colonised, settled, and governed by Protestants. The northern part of America is one of the most powerful and progressive States in the world.¹ In the southern part of America there is no political stability; no single State appears to secure even a settled government.

¹ There is scarcely any country where the Catholic religion has made such progress. The well-known English writer, Mr. Bodley, in an article in the *Edinburgh Review*, sets down the number of Catholics in the United States in the year 1890 as 10,000,000. The number now is set down by Archbishop Ireland and by *Sadler's Directory* as 12,000,000. Mr. Bodley, in the article just referred to, shows that when the population of the United States was 13,000,000, it included but 500,000 Catholics, or 1 in 26, whereas in 1890, out of a population of 65,000,000, there were 10,000,000 Catholics, or roughly, 1 in 7, a very considerable increase. But if we go back to the close of the eighteenth century, we find that the Catholics in the United States numbered but 40,000 out of 3,000,000, or but 1 in 75. Hence the extraordinary progress of the Catholic Church in what Dr. Horton calls "one of the most powerful and progressive

There are no Arts or Letters, and it is not too much to say that these great Catholic States of South America are the most backward and hopeless of all the civilised countries of the world. Supposing you come back to Europe, and look at the great country which originally colonised the southern part of America, the country which for our purpose may be treated as one—Spain and Portugal. You remember that four centuries ago this great Catholic country was the leading power in Europe. You remember that she was the undisputed mistress of the New World. You may also be acquainted with the condition of that great Catholic country to-day. It is in a condition, apparently, of hopeless decay.” Again, at a meeting held at Norwich to protest against union with Rome, Sir A. Bagge presided, and he also took the opportunity, of course, to contrast “what he termed the happy, pro-

States in the world” may be appreciated by a study of the following figures :—

When the population was 3,000,000; Catholics numbered 40,000,
or 1 in 75.

When the population was 13,000,000; Catholics numbered
500,000, or 1 in 26.

When the population was 65,000,000; Catholics numbered
10,000,000, or 1 in 7.

This indicates a steady as well as a rapid increase.

sperous condition of Protestant countries with the degraded, stagnant state of Roman Catholic nations. In Ireland, for instance, there were virtually two nations. In the South of Ireland one might fancy oneself in Spain, while in Belfast one appeared to be in Scotland or England." But he should—unless he puts money above morals?—contrast the *moral* condition of the non-Catholic with the Catholic parts of Ireland: and then weigh the difference. At a meeting of the Church Association Conference at Bristol (see *Times*, November 7th, 1895), the Rev. F. J. Horsfield (Bristol) read a paper on "Unity: How Far it is Advisable or Attainable". He "declared against reunion with Rome, contending that all history taught that the increase of Romanism meant the decrease of national prosperity, the relinquishment of national liberty, the forfeiture of national peace, and the decline of national power". But it is not the inferior clergy alone who rely upon such an argument, but even Prelates and Bishops.

Here is a characteristic instance ready at hand, which I cull from a speech by the Bishop of Sodor and Man (see *The Record*, February 22nd, 1895, p. 184): "See how God has blessed England since she accepted the prin-

ciples of the Reformation, and how He has continued to bless her in proportion as she has been true to them. Why, 350 years ago our coffers were depleted, our land depopulated, through the Wars of the Roses, and we had no colonies and next to no commerce. To-day it is our proud and true boast that the sun never sets on the British Empire, and in all respects God has poured His blessings on our land." This is a clear appeal to the vulgar and the ignorant. What have coffers, whether depleted or not depleted, to do with religion? It is Divine Truth we seek, and the unadulterated Word of God, as the one thing needful, not "full coffers". "What," asks Christ, "doth it profit a man to gain the whole world and then to lose his soul?" If our Lord's Kingdom were earthly and material there would be some sense in such an argument, but unfortunately for the Bishop's statement, Christ said, "My Kingdom is not of this world". These men evidently think it is. Napoleon I. once described England as "a nation of shopkeepers". So I suppose we must regard this as an appeal to the commercial or shopkeeping spirit. Put into plain English, the argument practically amounts to this: Don't abandon your Protestantism; don't go over to the Church of Rome; don't

become Catholics! Why? Is it because you will offend God? Is it because you will lose your souls? No! Why, then? "Because it does not pay! Because it is not a money-making concern. Because it will not put gold and silver into your pockets. Because, if you become a Catholic people, you may sink into comparative poverty and lose your influence among the nations." Here is an argument worthy of a nation of shopkeepers! Suitable, indeed, to a "parcel-tying and pence-counting generation". But I wonder what some of our sturdy old martyrs would have thought of such language! Can we imagine or conceive the Prosperity argument on the lips of the Apostles—on the lips of St. Peter, for instance, whose boast was that he had "left all things" to follow Christ; or of St. Paul, who confessed that, "having food and covering, we are therewith content" (1 Tim. vi. 8); or of Blessed Thomas More, or Cardinal Fisher, or of any one who-soever with a soul above gold, or a heart bigger than that of a shard-borne beetle? When mixed up with religion and with our duty to God, it is the argument of an ignoble and a worldly mind. It sets religion before us as a money-making concern. In sober truth, except to such as believe that Christ founded His Church for

the purpose of making people rich, and nations prosperous, it is hardly to the point. Why, indeed, should English Protestant Churchmen be at so much pains to assure us that the Church of God does not succeed in doing what it was not created to do, and what does not fall within its province, or within the scope of its institution?

In plain truth the whole argument is founded upon a baseless assumption, *viz.*, on the assumption that material prosperity and worldly greatness are unmistakable signs of God's favour and approval. But is there any truth whatever in this? Quite the contrary. God has nowhere promised any kind of temporal reward to those who follow the teaching and the example of His crucified Son, and who walk in the footsteps of Him who had not whereon to lay His head. Where such promises do occur, in the New Testament, they are made not by God, but by the enemy of God, the devil. Yes! It was not Christ, but Satan, who, pointing to all the kingdoms of the world and the glory of them, said: "All these will I give Thee, if falling down Thou wilt adore me" (Matt. iv. 7). They were offered as the recompense of apostasy, of sin, and of devil-worship, not as the reward of virtue.¹

¹ L. de Torrente says: "The inference would be, of course, that all those who possess kingdoms have been guilty of

Indeed, it is hard to explain how any Christians, and least of all those who hug the Bible and who profess to base the whole of their religion on the "Written Word," can regard mere material wealth and political power as symptoms of Divine approval. Both in parable and in direct statement the Scriptures seem to lay down a precisely opposite doctrine. We nowhere read "Blessed are the rich," or "Blessed are the powerful and the domineering"; but rather "Blessed are the poor, the humble, the meek, and those who mourn, and those who suffer persecution for justice' sake," etc. Nay, it is precisely against the great and prosperous that Christ launches out His severest denunciations and hurls His most unsparing anathemas. To listen to certain representative Protestants—such, for instance, as the Bishop of Sodor and Man—one might almost be led to fancy that they had never read the New Testament, nor even so

apostasy, of sin, and of devil-worship". How can a man of sense have written such a sentence! Is he unaware that the devil is "a liar, and the father of liars" (John viii. 48), and that he never fulfils promises, even though he make them? The inference, therefore, is that there is no warrant in the New Testament that prosperity will reward virtue, because the only promise given is given by one whom none can rely upon, *viz.*, the "Father of lies," and even that promise is given in favour of vice, not virtue.

much as heard of its teaching. What meaning can the Prosperity Theory advocates, who so extol riches, attach to the following words of Our Lord : "Wo to you who are rich"? What can Christ have meant by declaring that "Hardly shall a rich man enter into the Kingdom of Heaven"? That, in fact, "It were easier for a camel to enter through the eye of a needle than for a rich man to enter Heaven"? And how will the loud-tongued and noisy boasters of England's wealth and riches square their teaching with the inspired declaration of St. James ii. 5 : "God hath chosen (*not the prosperous, observe, but*) the poor, rich in Faith, heirs of the Kingdom" of Heaven? How will they approve God's warnings : "Lay not up for yourselves treasures on earth"? which is just what they praise Protestant nations for doing so successfully. And "Wo to you that join house to house, and lay field to field" (Is. v. 8). Or again, how will they explain the inspired statement of St. Paul : "They who would become rich fall into temptation and into the snare of the devil"? etc. (1 Tim. vi. 9). May not this be why so many nations, on becoming rich, have in fact become Protestant, and have got entangled and caught in what St. Paul calls "the snare of the devil"? Surely it is somewhat

difficult, with these texts staring us in the face, to discover any weight in the wealth and prosperity argument. Indeed, the only effect upon us of reading this good Bishop's vapourings is one of wonder at the singularly little effect produced upon Anglicans by all their boasted study of the Holy Scriptures. What authority have we for supposing that commercial success, and vast armaments, and a powerful navy, and material splendour are marks of God's favour, or reliable credentials of truth in matters of religion? This may be the language of the Bishop of Sodor and Man and his *confrères*, but the only question of interest is, is it the language of the Gospel? It is nothing of the kind. If Job was sorely afflicted, it was because he was "pleasing—not displeasing—to God"; and if God resolved to show St. Paul what great things he had to suffer, it was because he was "a vessel—not of damnation, but—of election". But—as though all this were not enough—Christ draws a most telling picture for us, which even the most ingeniously and densely stupid can scarcely contrive to misunderstand, in the parable of Dives and Lazarus. On the Prosperity Theory the parable is altogether topsy-turvy. Dives ought most certainly to have gone to Heaven, and Lazarus—well, poor.

suffering, outcast Lazarus—should not have been consigned to Abraham's bosom, but to an altogether hotter and more disagreeable place.

We have appealed to the inspired pages of Holy Scripture. We have seen how little support they afford to the common stock-in-trade anti-Catholic argument which converts poverty into a crime, and raises prosperity into one of the Marks of the true Church—the only Mark, we fear, at all visible in any one of the two or three hundred contradictory Protestant sects, whether “by Law established” or not. We will now close the Bible and the revealed Word of God, and appeal to reason, to common-sense, and to profane history. Let us, just for the sake of argument (and by a tremendous stretch of the imagination), suppose the Protestant contention to be true, and we shall then find that it lands us in an absurdity. We will prove the falsity of the statement by a process known in logic as the *reductio ad absurdum*. If we suppose national prosperity, material wealth, and worldly influence and authority to be a sure sign of God's approval of the religion¹ professed by

¹ L. de Torrente with some truth observes that : “ Prosperity is the result of natural and not of supernatural virtues ; just as health is the result of good food, cleanliness, exercise, and so forth. Faith alone will not supply either health or prosperity.

the country enjoying such advantages, then we must also blasphemously suppose that God is fickle and inconstant, and that He sometimes approves of one religion and sometimes of another.

In fact, the force of mere logic will drive us to declare that in one century He approves of Protestantism, that in another He prefers Paganism, and that in a third He rather inclines to Catholicism ; while at other times He is divided between Lutheranism and Calvinism. We not unfrequently hear our Anglican and dissenting friends exclaim : “ Look at Great Britain. See how prosperous and powerful she is ! Consider her wide possessions, her numerous colonies, her mills and manufactories and marts ; her splendid battleships and brave sailors. Behold ! her flag waves over every sea, her children are to be met in every land, and her credit and influence are everywhere admitted. See how the Almighty blesses and prospers us Englishmen, and what an exceedingly fine set of fellows we are ! What a contrast,” they superciliously exclaim, “ to Catholic Spain and Portugal and

Success in business depends upon industry, honesty, intelligence, and so forth. No amount of faith or of any other supernatural virtues will supply the place of natural intelligence or industry.”

Italy!" All of which reads very much like a new version of the parable of the Pharisee and the Publican, and makes one just a little ashamed of one's own countrymen. As though the poverty and depression of Spain or of other Catholic countries were marks of God's displeasure and signs of His disapproval of "Popery". It might, of course, be urged in reply that England was as great and respected when she was Catholic as she is now—nay, more; that in the truest and highest sense of the word she was really greater. The good things of this world were more evenly divided, extremes of wealth and indigence which now shock and scandalise us did not exist, and the country was not torn up into some three hundred struggling and contending religious factions.

Indeed, we may truly say that all that is best and grandest about England, even at the present time—and I take England as a typical Protestant country—has come down to her from Catholic days, when she was known throughout the world as "Merrie England," a beautiful title, of which Protestantism has, alas! now wantonly robbed her. Thus (1) her glorious constitution, (2) her representative form of government, (3) her two Houses of Parliament, (4) her trial by jury, (5) the Charter of her

liberties, the Magna Charta, (6) her noble universities, (7) her splendid cathedrals and churches—all these, and much more, she has inherited from her Catholic progenitors. It was they, too, who won Crécy, Poitiers, and Agincourt; and, in a word, built up the sturdy fabric of our Empire. However, if her purely *material* prosperity be insisted on, it might easily be shown that this is not owing to religion at all, but to certain accidental circumstances in no way connected with any form of religious profession; among many others, notably to the fact—which would have been the same had the country been Catholic, Protestant, or Pagan—that it contained valuable mines of iron, tin, and coal. For observe, England's great commercial advance dates from the invention and introduction of machinery, and the application of steam as a motive power. These two discoveries revolutionised the entire conditions of peoples and nations. Those countries which were fortunate enough to possess iron (*i.e.*, the raw material) and *coal*¹ (*i.e.*, the means of smelt-

¹ The Chancellor of the Exchequer, when introducing his Budget in the House of Commons (April, 1901) said: "*Coal is the life-blood of our industry [hear, hear]. It is essential to the comfort of our great population. Without coal our great industries would languish and our population would diminish and decay. Coal has made Great Britain what she is,*

ing and preparing it) were necessarily at a very considerable advantage. In a word, England began to surpass her less fortunate neighbours and to play a winning game, not because she had begun to cry "To hell with the Pope!"—which the Bishop of Sodor and Man would seem to imagine—but because she found her hands full of trump cards. Thus my conclusions so far are : (1) In the truest and highest sense, England is not so prosperous now, as a Protestant country, as she was when a Catholic country. (2) In a lower and purely material sense she is more prosperous now ; but even this kind of prosperity cannot be ascribed to her religion, but to conditions wholly climatical, geological, and mineralogical.¹

and the absence of coal is, in my belief, the main reason of the comparative poverty of Ireland".

¹ A certain "Roman Ecclesiastic," signing himself "L. de Torrente," finds fault with my words. He says: "Monsignor Vaughan unhesitatingly says that England is not a prosperous country—that it was more prosperous in pre-Reformation times. But the difficulty of the position he has taken up manifests itself in the very next sentence: 'Her prosperity in the lower and purely material sense cannot be ascribed to her religion, but to geological and mineralogical conditions'. Two more contradictory sentences were never written consecutively—England is not prosperous, but her prosperity is due to coal and iron."

In this passage, it is difficult to say whether L. de Torrente is merely trying to be smart, or whether he is really unable to

As a proof of my first statement, let me quote a few unprejudiced non-Catholic writers. Listen to Mr. Frederic Harrison : " To me, at least, it would be enough to condemn modern society if the permanent condition of industry were to be that which we behold : that 90 per cent. of the actual producers of wealth have no home that they can call their own beyond the end of the week ; have no bit of soil, or so much as a room that belongs to them ; have nothing of value of any kind, except as much old furniture as will go in a cart ; have the precarious chance of weekly wages which barely suffice to keep them in health ; are housed, for the most part, in places that no man thinks fit for his horse ; are separated by so narrow a margin from destitution that sickness or unexpected loss

see what to everybody else is clearer than daylight. In any case I will add, in italics, the words which any reasonable man might have supplied for himself from the context ; and then it will be seen that the " contradiction " exists only in Torrente's fertile imagination. Thus : England is not prosperous in the truest sense (*which supposes unity of faith, content and happiness among the masses of the people, a certain degree of sobriety and morality, a just distribution of wealth, and a care for the poor and indigent*), and even the lower sort of prosperity which she does undoubtedly possess (*represented by such things as mines, mills, and machinery, big ships, big guns, and immense wealth*) is due, not to her religion, but to geological, mineralogical, and other material conditions. If these are " contradictory sentences," then we do not know what the term " contradictory " means.

brings them face to face with pauperism". As Thomas Carlyle writes : " There must be something wrong : a full-formed horse will bring from twenty to two hundred *Friedrichs d'or* ; such is his worth to the world. A full-formed man is not only worth nothing to the world, but the world could afford him a round sum would he simply engage to go and hang himself." Think of London ! Last summer, the number of London unemployed domestic servants alone was 12,000. In the winter there are often in London 100,000 poor people vainly seeking employment. Then the standing number of paupers is 100,000. Let us leave London, and what do we find elsewhere ? More than a third of Scottish families live in one room each family ; more than two-thirds in not more than two rooms each family. " At present the sun never shines in the bedrooms of three-quarters of the people of New York City." The number of children in the State of New York who are being brought up in public institutions is 29,000. In Sydney quite lately there were 8,500 men on the register of the unemployed, " and probably as many more not registered". In Melbourne things are rather worse. Of the drunkenness and animal indulgence, the robberies and murders, which are made easy by poverty, who will give us an idea ?

We know, for just one thing, that in London there are 80,000 women who sell body and soul for a little money.¹ Indeed, we are assured that so appalling is the physical and moral degradation of a large section of the human family now living in this eclectic century, that one of the champions of the people has not hesitated to say that "if a choice were given to any one of them, between entering life as a *Tierra del Fuegian* or as a hewer of wood in such a highly civilised country as Great Britain, he would make infinitely better choice in selecting the lot of the savage"; while Professor Huxley has given it as his opinion "that unless there is an improvement of the greater part of the human family . . . in the intensity of work with its concomitant physical and moral degradation among the masses of the people, he would hail the advent of some kindly comet, which would sweep the whole affair away, as a desirable consummation". John Ruskin writes: "Though we are deafened with the noise of spinning-wheels and the rattle of the looms, our people have no clothes; though they are black with digging fuel, they die of cold; and though millions of acres are covered with ripe golden

¹ Consult *Missionary Record*, January, 1893, pp. 4-7.

grain, our people die from want of bread". Is this "prosperity"?

As to the religious condition of the masses, let us select a few districts in the East End of London. It has been calculated that out of a population of 124,000 persons in Shoreditch less than 6,000 attend any kind of morning service even on a Sunday, and that even in the evening the number does not rise to 8,000. In Whitechapel, out of an estimated population of 76,000 souls, only 4,134 attend service in the morning and 4,203 in the evening. In Stepney, out of a population of 63,000, but 3,401 attend in the morning and 4,039 in the evening. In Poplar, out of a population of 169,000, 12,842 attend in the morning and 16,503 in the evening. And in other parts of the metropolis things are not much better. Mr. Chamberlain, M.P. (*Fortnightly Review*, December, 1883), says: "Never before in our history were the evidences of wealth more abundant; never before was luxurious living so general and so wanton in its display, and never before was the misery of the poor so intense, or the conditions of their daily life more hopeless or more degraded". And then he goes on to say that England has "a million of paupers, and millions more on the verge of it". Mr. W. T. Conybeare

(*Essays, Eccl. and Social*, p. 89) says: "The men who make our steam-engines and railway carriages, our presses and telegraphs, the furniture of our houses and the clothing of our persons, have now in a fearful proportion renounced all faith in Christianity. . . . The last census shows that in England alone there are more than five millions of persons who absent themselves entirely from religious worship." Mr. Charles Lester (*The Glory and Shame of England*, 1876) prefaces his second volume with several quotations. Here is one from Sydney Smith: "There is no doubt more misery, more acute suffering among the mass of the poor of England than there is in any kingdom of the world. . . . There are thousands houseless, breadless, friendless, without shelter, raiment, or hope in the world; millions uneducated, only half-fed, driven to crime and every species of vice which ignorance and destitution bring in their train, to an extent utterly unknown to the less enlightened, the less free, the less favoured, and the less powerful kingdoms of Europe."¹ *The Daily News*

¹"THE LACK OF ELBOW ROOM.—There are, according to the latest returns, at present in London 37,000 people living five in one room; 17,000 people living six in one room; 6000 living seven in one room; 1800 living eight in one room; 32,000 living eight in two rooms, and 14,000 living nine in two rooms." —*Daily News*, 27th August, 1898.

(16th October, 1888) observes that "it is mortifying to know that the population of Great Britain yields a larger proportion of lunatics than any other country in Europe". It is in view of the above considerations, and of many more which we have not time to dwell upon here, that I ventured to remark on page 457 that, in the *truer and nobler sense*, England was greater in Catholic days than she is now. In fact, the charges and complaints brought against her by Harrison, Carlyle, Huxley, Ruskin, Chamberlain, Conybeare, Lester, and many other honourable men to-day, simply could not possibly have been made by any one in the grand days of our Catholic forefathers, when England was "Merrie England," the "Dowry of Mary" and the "Island of Saints". But let us pass on. Solely for the sake of argument I will close my eyes to the state of religious chaos within the Established Church, and to the state of general irreligion outside it; as well as to the crime and obscenity, the poverty and squalor, and the daily chronicle of robbery, violence, suicide, and murder, and I will suppose that England and other Protestant nations are veritably the most successful and the most favoured nations in the world. The question before us is: Are we to accept this

condition of prosperity as a reliable sign that the religion professed by the State is pleasing and agreeable to God? Let us state the point as clearly as possible. Thus: Either national and material prosperity is (1) not a reliable sign of God's sanction and approval of a nation's religion, or (2) it is. If (1) it is not, then all such considerations advanced by Protestant Bishops and divines are silly, deceptive, misleading, and not to the point, and their words are undeserving of further attention. But if (2) it really be a reliable sign, then we shall find ourselves committed to the ridiculous and blasphemous assertion that the God of infinite and changeless Truth approves of every form of religion in turn, however grotesque, and irrational, and immoral. Why?

Well, for the plain fact—sufficiently obvious to every student of history—*viz.*, that the prosperity of nations varies according to place and period. Had we been living about two thousand years before Christ, and then applied the prosperity argument, the only conclusion we could have come to would have been that Idolatry was the religion approved of by God. One of the most prosperous nations—far more prosperous, indeed, than the theocratical and God-fearing nation of the Jews—were the

Egyptians. "More than two thousand years before Christ the Egyptians were highly civilised and educated; they had duodecimal as well as decimal numbers, and weights and measures adjusted to a pound of 1,400 grains. Their statuary and painting, their ornaments of silver and gold, their musical instruments, all bear witness to their skill in science and art. Goldbeating, damascening, engraving, casting, inlaying, wire-drawing, and other processes were practised. The commerce of the Egyptians with neighbouring nations enriched the country with slaves, cattle, gems, metals, rare animals, and objects of curiosity" (*Popular Encyclopædia*, vol. v., p. 101). This land of the Pharaohs was indeed great, mighty and prosperous. As Zahm truly remarks: "The ruins scattered all along the Nile Valley from Isambul to Alexandria are even now, after the lapse of thousands of years, the admiration of all who behold them. . . . Philæ, Thebes, and Abydos, great in decay, are, like the Pyramids of Gizeh, the best evidence of the greatness and the genius of the people who could plan and execute such marvels." Evidently, on the Prosperity Theory, these Egyptians must have been very dear to God, and their religion essentially true and divine. And yet we know

they were, as a matter of fact, rank idolaters, and worshipped the sun and the moon, and reckoned Osiris, Isis, and Horus, and many others among their gods.

Or we may pass to another example. Take Greece at the zenith of her fame, and see how the principle we are combating applies. Though now, indeed, of little consequence, she was once the most favoured of nations, and the home of art and poesy, of science, history, and philosophy. Her influence on the literature and the mind of Europe has probably never been equalled. "For thousands of years her art has been the art of the world, her literature the literature of the world, her philosophy the philosophy of the world. Worldly culture, taste, refinement, and æstheticism come to us from the land which produced Plato and Aristotle, Phidias and Sophocles, Pericles and Demosthenes. For thousands of years she has been the inspiration of scholars in every clime, and has contributed to the advancement of knowledge in every department of human research. For thirty centuries the Greek mind has directed the meditations of philosophers, and controlled the speculations of men of science. Her sculptured marbles have been the despair of all subsequent artists, and the matchless poems

of her sightless bard the despair of all subsequent poets." Freeman says that the average Athenian citizen was an incomparably abler man than the average member of Parliament ; and if we read the speeches directly addressed to the former, we cannot doubt that this is true.

Indeed, Dean Church does but state a simple fact when he asserts that : " The Greek Empire was, in its time, the only existing image in the world of a civilised state. It had arts, it had learning, it had military science and power ; it was, for its day, the one refuge for peaceful industry." ¹ Foremost, yet Pagan—the most worldly prosperous, yet the most infidel !

Here, again, we are able to gauge the value of the Prosperity Theory, and to detect the silliness of the Bishop of Sodor's words. If the splendour and grandeur of a nation, and its influence and power over the world, be proofs of God's approval of its form of faith, then we ought all to imitate the Greeks at the period of their greatest magnificence, and begin worshipping gods and goddesses, and paying divine honours to Jove, Minerva, Diana, Venus, and Mars. At yet a later period, we might make

¹ *Influences of Christianity, etc.*, p. 32. 1873. By Dean Church.

similar reflections concerning Imperial Rome. In fact, on the Prosperity Theory, God approves of different religions at different periods, but has generally shown a most decided preference for Paganism. Imperial Rome was, at the time of her greatest prosperity, unequalled by any other nation. The entire world was modelled under the powerful yoke of the war-like Romans ; their pioneers opened roads, which began at the Eternal City, to end at the extremity of the earth ; their language was adopted as a mark of servitude by the conquered nations ; and the world itself, for ages, was Roman.

The historian Darras declares that the Roman Empire was "the strongest human institution that the hand of man has ever founded, that its framework was of iron, and that for centuries it lorded it over the conquered nations of earth". He reminds us further that "Augustus the Great wielded the destinies of the most mighty empire the world has ever seen". With such examples before us, the inferences drawn by such men as Messrs. R. Horton, H. Henson, J. Welldon, F. Horsfield, and others, look less than reasonable. It is a pity that their hatred and distrust should betray them into such illogical theories, and lead them into such con-

fusion of thought. Why, on their theory, we ought to abandon Christianity for the grossest forms of Paganism, and build temples to Jupiter Tonans and Mars Ultor, and to Isis and Serapis, and engage in all kinds of obscene and infamous rites in honour of a score of different divinities. As a matter of fact, the Prosperity Theory is such an extremely convenient one, that it will work out any way we please, according to the particular century in which we choose to apply it. You select your period, and you take your choice. We have seen what countenance it gives to the most degraded forms of Paganism. We shall now show that, by a careful selection of the period, it may tell even in favour of Catholicism. We have but to go back to the sixteenth century to find that the country then the most prosperous and successful, and which stood at the head of the nations, was not only the most powerful, but also at the same time the most thoroughly Papal and Catholic. Under Philip II. Spain enjoyed a period of quite exceptional prosperity and grandeur. She had conquered Navarre and Naples, and large portions of North, Central, and South America. She had succeeded in uniting Castile and Aragon, and her generals had by their courage and successes raised the new kingdom to the front

rank of European Powers. The expeditions which she had sent against Tunis and Algiers had extended the fame of the Spanish army throughout Europe ; while on the other hand immense wealth and untold treasures of gold and silver flowed into the country from Mexico, conquered by Cortes in 1518, and from Peru and Chili, conquered by Pizarro and Almagro some ten years later. As even Dr. Horton, in strange contradiction to his thesis, admits : " This great Catholic country was the leading Power in Europe, and the undisputed mistress of the New World ". And here it may be well to remember, on the other hand, that it is not only Catholic nations that have decayed. Take Holland in the century after the " Reformation," when she might be said to be the pillar of the " reformed " creed throughout Europe. Her fleets swept the seas as the British fleets do to-day, her universities attracted scholars from all parts of the world, her art was almost unrivalled—the priceless treasures of that famous Dutch school are guarded by loving hands to-day—and her mighty colonial empire was the envy of all the nations. What has become of all these to-day ? All has passed away. Holland in the zenith of her power had persecuted the Holy Church in a most cruel way, and so was humbled to

the dust. She has since learnt to respect the Church, and has abolished those penal laws and has restored to her people that liberty of conscience which was the surest guarantee of future greatness.

“As a matter of historical fact,” says *The Spectator*, in a leader, “Christianity was one of the three great influences which destroyed the terrible prosperity of the Roman Empire, and many nations—*e.g.*, the Spaniards under Charles V., and the French under Napoleon—have achieved empire while their Christianity was either of a low type or temporarily in suspense. The Quakers, who are among the best of Christians, have grown rich; but the Moravians, who are equally good, have remained poor. The French, who are the least Christian of Christian peoples, are splendidly prosperous; while the Armenians, who at least believe to the extent of martyrdom, are the most oppressed of all the races within the Turkish Empire. We can, in fact, see little or no connection between national success and Christianity.”

And again: “Compare Belgium, with its devotedly Catholic population, with Sweden,¹

¹ At the time of the Thirty Years' War, Gustavus Adolphus and his army controlled the destinies of the greatest countries of Europe—observes Cardinal Moran—and yet Sweden is scarcely reckoned a fourth-rate Power to-day.

which is entirely Protestant, or with Switzerland, in which the religions are almost equally divided. Or compare the Rhenish provinces of Prussia and their Catholic population with the strictly Protestant population of the two Mecklenburgs, or even the Protestant cultivators of Brandenburg and Pomerania," and we shall realise what trust is to be placed in the Prosperity Theory.

Why even "Pagans, steeped to the lips in evil doctrines, grow as rich under British protection as Englishmen themselves. Is it the truth of their faith that makes the Parsees one of the most prosperous of communities, or is it their own energy, and industry, and love of acquiring cash? It seems to us that religion is degraded, not elevated, when we try it by a test, the logical conclusion of which is that the Apostles ought to have developed into Ministers of State, and the Disciples into the Barings of the ancient world. There is fatness and the pride of fatness in such a view of truth and its results."

If Ireland (so often quoted as an example) be poor and unprosperous, it is not its Catholicity which is responsible for the result. "Fill Ireland with ultra-Catholic Flemings, and Ireland would be filled with a people making money every day, using her streams, her meadows,

her fish, and, above all, her many facilities for manufactures. England is great because of the blood of her people, their energy, their freedom, and their industry, not because of their creed. Fill her with Celtic Huguenots, and she would be a little land, very happy, very contented, very good, and with an entire incapacity for the empire of the seas, which is the source and guarantee of British prosperity.”¹ Perhaps the nation that has made the *most* rapid strides in commercial, material and worldly progress is Japan, yet Japan is not even Protestant, but Pagan! With a bound she has sprung to the front in the comity of nations, and has totally thrown out of gear the calculations of statesmen with regard to the balance of power throughout the world. Indeed, the scramble for China is said to be directly due to the marvellous advance made by its rival, Japan.

But why multiply instances? Let us rather end our exposure of the Prosperity Fallacy by a brief summing up.

CONCLUSIONS.

(1) Material prosperity and worldly success are nowhere given by Christ as marks of Divine favour and approval. (2) So far as Our Lord's

¹ See *The Spectator*, 29th October, 1898, pp. 590-1.

words bear upon the subject at all, they suggest a diametrically opposite conclusion. (3) Limiting our survey to England itself, we are bound to confess that all that is really best and grandest in its government and constitution has been inherited from Catholic rulers in past centuries, under the guidance of the Catholic Church ; (4) And that the purely material wealth and commercial prosperity and worldly grandeur are not results of a change of religion so much as consequences of the development of her industries, and the discovery and opening out of her iron and coal mines, and of the invention of steam and machinery, the natural multiplication of her population, and the protection afforded by her sea-girded coast, and so forth. (5) Further, we are sorrowfully bound to confess that the superficial pomp and splendour, and wealth and luxury, and outward show, of which so many boast, are more than counterbalanced by the appallingly irreligious, immoral, and vicious state of multitudes of its inhabitants ; and the misery, squalor, wretchedness, and degradation of enormous masses of her people. And (6) since the foremost and grandest, and most learned and gifted nations of the world have not invariably or even generally been Protestant, but in many cases Catholic, and

yet more frequently Pagan and idolatrous, either we must cease to regard material prosperity as a sign of truth and Divine approval altogether, or else we must blasphemously assert that God, the changeless and the eternal, is as fickle as the most foolish and fickle of His creatures.

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